

Monday, November 6, 1978

New appointments

Professor W.G. Oxtoby has had his term as director of the Centre for Religious Studies extended to June 30, 1981. The extension was approved, along with other appointments, Oct. 26 by the Academic Affairs Committee.

Professor Kirk Wipper was named associate director of the School of Physical & Health Education from July 1, 1978 to June 30, 1979, and Professor Ralph Wormleighton will be acting chairman of the Department of Statistics from Oct. 1, 1978 to June 30, 1979.

Appointed professors with tenure were: David Dunlop, Erindale College, from July 1, 1978; and in the Faculty of Medicine, J.D. Morin, Department of Ophthalmology, from Aug. 1, 1978; H.Z. Movat, Department of Pathology, from Jan. 1, 1978.

In the Department of Pharmacology, Faculty of Medicine, Lawrence Spero was made an associate professor with tenure, effective Oct. 1, 1978.

U of T to grant theology degrees

The *University of Toronto Amendment Act, 1978*, was presented to the legislature for first reading by the Hon. Bette Stephenson, Minister of Colleges & Universities, Oct. 23.

The bill has two purposes: it allows U of T to grant degrees in theology, making the federated theological colleges and universities eligible for increased provincial operating grants, and is also "designed to streamline the decision-making process by providing for increased delegation of authority, thus providing for more participation by members of the University community in their government".

Passage of the bill, said Stephenson, "will ensure that theological education at the federated colleges will be strengthened and that the University's government will be better able to face the challenges of the future."

St. Mike's library named

Nine years after it was opened, the St. Michael's College Library finally has a name. The Students' Union (SMCSU) requested that the building be named after the college's past president, Father John Kelly. Cathie Massel, president of SMCSU, explains the choice:

"While Father Kelly will still be with us, we would nevertheless like to remind the students of the dedicated and tireless efforts he put forth to further academic goals here and to preserve the traditions of St. Mike's."

Honorary degree nominations

Later this year the Committee for Honorary Degrees will meet to consider candidates for the award of honorary degrees at the 1979 spring and fall Convocations. Members of the University community are invited to submit names of possible candidates along with a biography outlining the career of the candidate and a detailed statement of reasons for the nomination to the secretary of the Governing Council, Simcoe Hall. Nomination forms may be obtained from the Governing Council Secretariat, and should be submitted by November 30.

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Bulletin

'Aim for a balanced budget'

by cutting \$6 million, say budget guidelines approved by P & R Oct. 23

Budget guidelines which propose that the University's base budget be cut by 3.5 percent, or \$6 million, were approved by the Planning & Resources Committee Oct. 23.

Explaining the guidelines, Professor Stewart Lee, member of the Budget Committee, said that the reduction is necessary in order to meet rising costs, balance the University's 1979-80 budget (by stabilizing the accumulated deficit at \$2.8 million) and release some funds for reallocation.

Although each division's budget will

not be reduced by 3.5 percent, this figure is the average reduction for the University's operating budget. Factors such as underspending, enrolment, instructional activity, levels of staffing, and availability of outside funds will be taken into consideration when determining budget cuts.

In addition to the 3.5 percent reduction, "one-time only" allocations of \$1.3 million for expenses in 1978-79 will be withdrawn, and will not be renewed except on the recommendation of the Budget Committee.

The 3.5 percent reduction is based on assumptions concerning income, expenses, and expense variables (salaries, "progression-through-the-ranks" or PTR, and merit increases).

Income assumptions are:

- that the government will continue its policy of financial restraint until the provincial budget is balanced in 1981-82
- that the government's grant to universities will continue to be allocated through the Operating Grants Formula, including the "discount/stability factor" and "three-year moving average"
- that supplementary grants will remain at their current proportion of total government funding for universities
- that enrolment at the University of Toronto will remain steady within a range of fluctuation of about 1.5 percent
- that total university enrolment in the province will decline by between three and four percent annually
- that the government's total operating grant to universities will increase by 5.3 percent annually
- that the U of T operating grant will increase by 4.5 percent annually.

Expense assumptions are:

- that there will be no significant growth in the University's establishment
- that price inflation will be six percent.

Expense variables are:

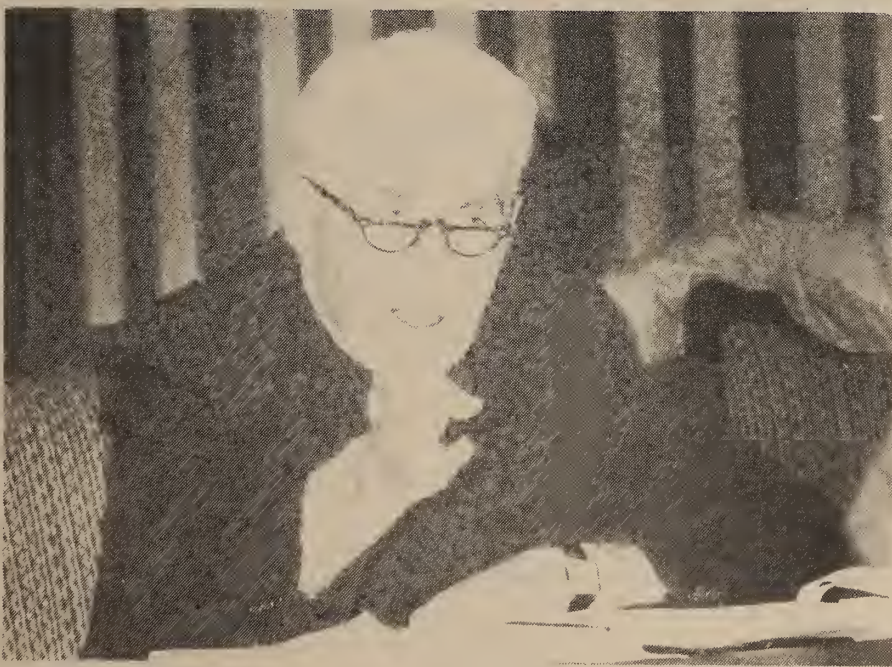
- that in relation to the above expense and income assumptions, salary expenses will increase by five percent annually
- that PTR and merit will increase at three percent annually, less an annual recovery at \$1 million.

Without a reduction of 3.5 percent, the application of these assumptions and variables would mean that the University's present deficit of \$2.8 million would increase to \$6.1 million in 1980; \$9.9 million in 1980-81; and \$14.3 million in 1981-82. These figures would be well beyond the limit set by Governing Council policy, i.e. that the accumulated deficit may not be more than 1.5 percent of the operating budget.

For 1978-79, the maximum accumulated deficit could be about \$3.2 million; however, budget guidelines will restrict it to \$2.8 million. Explaining the rationale behind this, the guidelines state that "Without a tangible probability that the University's financial position will improve, carrying the deficit at the maximum level would be a perilous course of action . . . Among the province's universities, the University is one of six that will have an accumulated deficit in 1978-79 and is the one with the largest accumulated deficit either in absolute terms or as a percentage of annual operating expense. Therefore, the committee must aim for a balanced budget in 1979-80 and accept some reduction in the accumulated deficit if circumstances become more favourable than expected. Achievement of a balanced budget and, if possible, some reduction of the accumulated deficit will preserve some budgetary flexibility to respond to unforeseen future financial stress and to reverse the drain on interest

More structure for Arts & Science

and a larger academic role for colleges, recommends Kelly Committee's interim report



Father John Kelly

A greater degree of structure in the arts and science curriculum and more college involvement in academic programs are the primary recommendations of the interim report of the Committee to Review the Undergraduate Program (the Kelly Committee).

Established in March 1977 to "examine the current undergraduate program and report to the dean on appropriate modifications", the Kelly Committee based its report on briefs received from the various University estates. Over 40 submissions were made to the committee, some transmitting a college council or departmental consensus, and others representing individual points of view. Most were "quite critical of the current curricular, administrative and counselling arrangements within the faculty".

The major recommendations are that specialist programs, combined specialist programs, and major and minor programs be available; that these programs be

offered by departments, groups of departments or by colleges; and that the year be re-introduced as a unit of curricular planning.

"Our primary aim," the report says, "is to ensure that each student's program of study has academic worth and coherence, and that it provides a cumulative experience of increasing knowledge and mastery in a chosen area while at the same time requiring the inclusion of courses in more than one discipline. In a faculty as large as ours, feelings of anonymity and impersonality can be mitigated by the special role of the colleges and . . . by the formal association of students with particular programs whose courses they follow in an ordered pattern."

The committee's report is printed in its entirety in this issue of the *Bulletin*. (See Supplement)

Continued on Page 3

PhD Orals

Monday, November 6

David Aron Shafer, Department of Anthropology, "Chromosome Structure and Banding Organization in Human and Mammalian Cells." Thesis supervisor: Prof. A. Ray. Room 111, 63 St. George St., 2 p.m.

Tuesday, November 7

Sheila Campbell, Department of History of Art, "The Mosaic Pavements of the Anemurium in Cilicia, with Special Study of the Geometric Motifs." Thesis supervisor: Prof. A. Alföldi. Room 111, 63 St. George St., 9.30 a.m.

Friday, November 10

Ann Dooley, Centre for Medieval Studies, "The Beginnings of Religious Bardic Poetry in Ireland in the Thirteenth Century." Thesis supervisor: Prof. H. Roe. Room 309, 63 St. George St., 2 p.m.

Monday, November 13

Nelson Leslie Rowell, Department of Physics, "Brillouin Scattering in Optical Waveguides." Thesis supervisor: Prof. G.I.A. Stegeman. Room 309, 63 St. George St., 10 a.m.

Robert Blaine Moore, Department of Biochemistry, "The Role of Calcium in the Structure and Function of Erythrocyte Membranes: Calcium-Binding Sites and Permeability to Substrates of Enzymes." Thesis supervisor: Prof. J. Manery Fisher. Room 307, 63 St. George St., 10 a.m.

Tuesday, November 14

Douglas John Thom, Department of Educational Theory, "Hockey Participation as a Factor in the Secondary School Performance of Ontario Students: An Effects Study for Administrators." Thesis supervisor: Prof. D. Ryan. Room 111, 63 St. George St., 2 p.m.

Wednesday, November 15

David John Wren, Department of Chemistry, "Chemiluminescent Reactions of Barium with N₂O, NO₂, and the Halogens." Thesis supervisor: Prof. M. Menzinger. Room 309, 63 St. George St., 10 a.m.

Arthur Michael Haycock Laing, Department of English, "Pastoral Paradoxes: Studies in Theocritus, Virgil, Barclay, and Spenser." Thesis supervisor: Prof. J.A. Carscallen. Room 111, 63 St. George St., 2 p.m.

Thursday, November 16

Leslie Wilk, Department of Physics, "Spin Density Functional Theory Investigation of Charge and Spin Densities in Atoms and Metals." Thesis supervisor: Prof. S.H. Vosko. Room 309, 63 St. George St., 2 p.m.

Wednesday, November 22

David Lloyd George Yule, Department of Educational Theory, "Management of Learning in Work Settings." Thesis supervisor: Prof. V. Griffin. Room 111, 63 St. George St., 10 a.m.

Friday, November 24

Eric Alexander Grindlay Binnie, Centre for the Study of Drama, "The Stage Designs of Charles Ricketts." Thesis supervisor: Prof. A. Saddlemyer. Room 309, 63 St. George St., 2.30 p.m.

Search for Roberts' letters

A search for the letters of Sir Charles G.D. Roberts, well-known poet and writer of animal stories, is being conducted by Professor Fred Cogswell of the Department of English at the University of New Brunswick. As Cogswell plans to publish a collection of this correspondence in the spring, he would appreciate hearing from anyone holding letters from Sir Charles.

Service employees sign contract library workers continue with negotiations

Members of the University's maintenance staff — Service Employees Union, Local 204 — ratified a new one-year collective agreement with U of T Oct. 30.

The SEU represents approximately 700 University staff members employed as groundsmen, cleaners, cooks, cafeteria workers, storekeepers, drivers, parking attendants and laboratory animal technicians.

Terms of the new collective agreement, in effect until June 30, 1979, include a 37¢ an hour general wage increase, an improved job security provision and free tuition at the University for dependants of staff members. The agreement also provides the option for a group of employees to retire at age 65 rather than age 68 without actuarial reduction of pension benefits.

The University's library workers,

members of the Canadian Union of Public Employees, Local 1230, are still involved in contract negotiations. A mediator, Jean Read, has been appointed by the Ontario Ministry of Labour, and has scheduled a meeting of the parties for Monday, Nov. 6.

Negotiations between the University and the union, which represents approximately 390 library technicians and library clerical employees, commenced on July 19. Six meetings have been held, the last two involving a conciliation officer appointed by the Ontario Ministry of Labour.

The union conducted a strike vote Thursday, Oct. 26, at which 211 employees voted in favour of a strike and 89 were opposed.

Academic Affairs endorses new terms of reference

The Academic Affairs Committee endorsed their proposed terms of reference Oct. 26. After being reviewed by the Governing Council working group, the draft terms go before the Executive Committee Nov. 7.

Cancellation of the master of arts for teachers degree (1967) was approved by the committee at the request of Vice-President & Provost Donald Chant who said it should not be confused with the master of arts in teaching degree which he described as "exceedingly dynamic". He requested the cancellation on grounds that the particular degree program had "died aborning" and should be "decently buried".

Two constitutional changes were approved for the Faculty of Music. The number of ex officio members on the faculty council will be increased from

nine to 11 by the addition of the vice-provost (professional faculties) and the associate dean, Faculty of Music. In addition, the five departmental chairman members of council will be replaced by the five program coordinators.

The following members were approved for the Advisory Committee on Instructional Media: Professor C.C. Gotlieb (chairman), Professor P.L. Aird, Jane Cooper, Dr. D.H. Cormack, M.T. Edmunds, Professor Peter Harris, Professor W.J. Kirkness, Dorothy Miles, Vice-Provost R.W. Missen, Associate Dean J.W. Steiner, Professor Irwin Tallan, Donna Polawski, Gwynneth Bishop, and a representative from the Academic Affairs Committee.

The next meeting of the Academic Affairs Committee will be Nov. 23.

Job Openings

Below is a partial list of job openings at the University. Interested applicants should read the Promotional Opportunity postings on their staff bulletin boards, or telephone the Personnel Office for further information. The number in brackets following the name of the department in the list indicates the personnel officer responsible. Please call: (1) Sylvia Holland, 978-6470; (2) Penny Tai-Pow, 978-5468; (3) Manfred Wewers, 978-4834; (4) Ann Sarsfield, 978-2112; (5) Barb Lipton, 978-4518; (6) Clive Pyne, 978-4419.

Dental Assistant (\$9,620 — 11,320 — 13,030)
Faculty of Dentistry, temporary (1)

Computer Operator II (\$11,770 — 13,850 — 15,930) (Pro-rated)
Faculty of Library Science, sessional (6)

Programmer IV (\$20,820 — 24,500 — 28,180)
Computer Centre (3)

Research Assistant (\$10,590 — 12,450 — 14,310)
Psychology (1)

Engineering Technologist II (\$13,740 — 16,170 — 18,600)
Mechanical Engineering (5)

Control Technician (\$13,740 — 16,170 — 18,600)
Physical Plant (6)

Professional Engineering Officer (\$14,430 — 16,980 — 19,530)
Surgery (4)

Senior Electrical Draftsman-Draftsman III (\$14,430 — 16,980 — 19,530)
Physical Plant (6)

Administrative Assistant II (\$13,740 — 16,170 — 18,600)
Management Studies (4)

Secretary/Typist (\$35-40 per day)
Dentistry, part-time temporary, two days per week (1)

Maintenance Engineer-Professional Engineering Officer III
(\$20,820 — 24,500 — 28,180)
Physical Plant (6)

Dean of Men (\$20,820 — 24,500 — 28,180)
New College (2)

Information Officer (\$16,010 — 18,840 — 21,670)
School of Continuing Studies (2)

Research News

Granting council presidents to meet with researchers

On Wednesday, Nov. 8, the presidents of the three federal granting councils (Medical Research Council, Natural Sciences & Engineering Research Council, and Social Sciences & Humanities Research Council) will be meeting with the Research Board at 2.10 p.m. in the Council Chamber, room 202, Galbraith Building. All interested members of the University community are invited to attend. This meeting offers an important opportunity to discuss the roles and policies of the granting councils and to exchange ideas and interests with respect to university research.

Connaught New Staff

May competition terminated

The Connaught Committee has announced the termination of the New Staff research grants competition held in May. Both the major January and the August New Staff competitions have been retained. The next deadline for submission of research proposals to the Connaught Committee is *January 15*.

Imperial Oil research grants

Imperial Oil Ltd. supports research in areas of interest to the petroleum, petrochemical, and energy industries. These areas include the fields of environmental, earth, engineering and chemical sciences. Grants are also provided to encourage research in the socio-economic and social sciences pertaining to relationships between the above-mentioned industries and their employees, customers, and the business environment in which they operate. The grants range up to a maximum of \$6,000 and are made for a period of one year, with possible annual renewal for a maximum tenure of three years. Deadline for submissions to the agency is *January 15*.

For further information and application forms, call ORA at 978-2163.

Hastings Center post-doctoral fellowships

The Hastings Center, Institute of Society, Ethics and the Life Sciences, provides four one-year post-doctoral fellowships for the study of ethics and the life sciences. The purpose of the fellowships is to permit both older and younger researchers to prepare themselves systematically for future productive research on ethical problems arising from advances in medicine, biology, and the behavioural sciences.

The minimum requirement for eligibility is an advanced doctoral or professional degree or its equivalent. Applications are welcome from all disciplines. The stipend of \$19,000 for one year is expected to cover all costs, including transportation and housing. Deadline for submission to the agency is *January 1*.

For further information, call ORA at 978-2163. Application forms must be obtained directly from the centre at 360 Broadway, Hastings-on-Hudson, New York, 10706.

Public administration grants

Under the research grant program of the Institute of Public Administration of Canada, applications are welcomed from public servants and academics for grants-in-aid of research in public administration and closely related fields. The research program is designed to enlarge the body of knowledge about public administration and grants are expected to lead to additional contributions to the literature in the form of articles or monographs. Grants are intended to defray actual costs attributable to the research project. Applications must be submitted to the agency by *January 12*.

For further information, call ORA at 978-2163.

Fingerprinting diamonds

and freeing the innocent are two of SLOWPOKE's more colourful projects

These days, if you want to use SLOWPOKE, U of T's nuclear reactor facility, you have to stand in line. In fact, the demand for its services is so great that people virtually "fight" to use it, according to reactor supervisor Dr. Ron Hancock, Department of Chemical Engineering & Applied Chemistry.

Last year, a total of 36 faculty members, 12 research associates, 13 technicians, four postdoctoral fellows, 29 graduate students, 11 summer students, and dozens of undergraduates, all from U of T, made use of SLOWPOKE. In addition, four faculty members and 14 students from other Canadian universities, five government scientists, and 16 researchers from industry were involved in projects requiring the use of the reactor.

Buried 20 feet beneath the Haultain Building, SLOWPOKE (Safe-LOW-Power-Kritical-Experiment) is used primarily for neutron activation analysis, a highly sophisticated analytical process which is especially useful in identifying and measuring trace quantities of metallic elements such as mercury and arsenic.

In simple terms, here is how SLOWPOKE works: A sample of material to be analysed is sent via a pneumatic system to the core of the reactor where it is bombarded by thermal neutrons, rendering it radioactive. The radioactivity of the sample, measured in gamma rays, is read on a gamma ray spectrometer, and from this measurement the chemical elements in the material can be identified and quantified.

SLOWPOKE (known as SLOWPOKE-2) is actually an improved model of the original nuclear reactor set up at the University seven years ago. The current model was installed in 1975 and can sustain high power concentration of thermal neutrons for longer periods than could the first SLOWPOKE.

Despite occasional equipment breakdown, which has sometimes been caused by dust in the air from construction taking place in the Haultain Building, Dr. Hancock says the reactor "has behaved remarkably well while submitting to a heavy workload."

The most highly publicized project utilizing SLOWPOKE in the past year concerned a Kitchener man convicted of non-capital murder. Kenneth Roberts was sentenced to life imprisonment on the basis of hair samples found near the victim's body — samples that were microscopically identified as his.



Dr. Ron Hancock

Roberts spent three years in jail, but was recently re-tried and found not guilty, based on a new analysis of the hair done at SLOWPOKE by Professor Robert Jervis, Department of Chemical Engineering & Applied Chemistry.

The trace elements of the hair found around the body, and of hair taken from Roberts, were compared using the neutron activation method. It was found that whereas both samples contained 16 of the same elements, the concentration of the elements was too different for the hair to have come from the same person.

SLOWPOKE was responsible for another piece of detective work when Professor David Barham, Department of Chemical Engineering & Applied Chemistry used it to "fingerprint" diamonds.

Diamonds are formed in ancient volcanic pipes, or plugs, and each plug, it is theorized, has its own distinct chemistry. From the results of the chemical analysis, Barham feels encouraged that the absence or presence of elements, and their quantities, will make it possible to pinpoint the country, and even the exact mine, where the diamond originated. These findings, he says, could be invaluable to police in tracing the origins of diamonds seized on the black market.

"SLOWPOKE offers the only non-destructive means of testing a diamond," says Barham. "A diamond is unstable, so if you push it too far, it goes back to graphite. SLOWPOKE neutrons do some internal damage, but the diamond remains essentially unharmed."

Barham conducted another "fingerprinting" experiment, this time not on diamonds, but on glass slivers found in beverage bottles. Occasionally, during the high speed, high pressure process of filling bottles with carbonated beverages, a bottle will explode into fragments. In tests to analyse these glass slivers, Prof. Barham was able to determine that when a bottle explodes, the slivers do not go flying into other bottles, but get trapped in the beverage filler head, and so find their way into the next bottle to be filled. As a result of the tests, Barham says a new design for the filler head is being investigated.

An example of pure research utilizing SLOWPOKE's talents was an analysis of pre-Columbian Central American obsidians, conducted by Dr. Hancock and Dr. Paul Healy of Trent University. These particular obsidians are pieces of volcanic glass fashioned into prehistoric cutting tools and jewellery, says Hancock, and were highly prized as trading goods due to obsidian's scarcity. This means that they were usually "well-travelled", and that the archaeological site where they were excavated is usually not their place of origin. Like the diamonds, it is expected that an analysis of these obsidians will enable their origins to be traced, and will give scholars insight into such things as prehistoric trading activities and exchange routes as well as changing socio-political alliances in ancient Central America.

Press Notes

When given today's topic — our new *Perfecor* printing press — we made a demur. No knowledge of printing techniques, life-long aversion to machinery, already busy writing a timely piece on the Franciscan method of illuminating manuscripts...

'Just go and see it,' we were told. 'It's a most impressive piece of equipment with astonishing capabilities.' Grudgingly, we have to admit that it certainly is.



Shown at the left here is the mental picture we had of a printing press. Your basic model, rhythmically clacking away, tap-pocketa-pocketa-pocketa.

The *Perfecor* (meaning it prints simultaneously on both sides of a sheet) is a monster by comparison. Workers are dwarfed alongside it. To get an idea of the sound it makes, imagine a group of demented giants slapping a ton of butter with massive canoe paddles. To watch it work we climbed up on the high catwalks that run along its sides, and from there we could see the row of gigantic cylinders through which the paper sheets pass at high speed. Each sheet passes under an electronic eye and if it is even the slightest fraction off-register a deafening alarm is set off. When this happens workers swarm all over the press, fussily tending to it, like bees around their queen.

Things were going well until the foreman began to explain how the *Perfecor* works. 'Well,' he said matter-of-factly, 'this here's your horizontal fill-and-draw sedimentation tank, with your continuous filter there into your agitated ink channel and your alcohol-cooling system.' Or words to that effect. We nodded away dumbly, as we've done to many a crooked auto mechanic. Fortunately, what it can do is more easily understood.

The *Perfecor* prints on 38 x 50 inch sheets. Sixty-four regular book pages can be accommodated on both sides of a sheet that size, and the press prints a staggering 6500 sheets in an hour. So (pause to borrow calculator from trendy colleague) a printing run of 3000 copies of a book with, say 320 pages, can be finished printing in a little over five hours (allowing time for set-up). With this kind of equipment fewer authors will slip into dotage while waiting for their books to appear.

The first book printed on the new press was *Geared to the Stars*: The evolution of planetariums, orreries, and astronomical clocks, by Henry C. King. This extraordinary volume traces the complete history of geared planetary machines from the inventions of Archimedes to the astronomical clocks of the present day. It contains over 300 illustrations, a stiff first test for the *Perfecor*, which it passed easily.

One of the operators, a cheerful Scot, told us that when perfectors were first developed all the operators wore shoes specially fitted with mirrors on the toe caps in order to check the printing on the underside of the sheet.

'Aye laddie,' he said, winking at his foreman, 't'was no place to wear your kilt.'

University
of Toronto
Press

need a photo taken?

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David Lloyd
978-4161

'Aim for a balanced budget'

Continued from Page 1

income which is caused by the deficit."

The budget guidelines will be presented to Governing Council Nov. 16.

UTS fee increase

In other business, Planning & Resources concurred with a proposal, approved at Academic Affairs Sept. 28, to increase the annual fee for the University of Toronto Schools to \$550 Sept. 1, 1979 and to \$800 Sept. 1, 1980 "with the plan to seek a commensurate increase in the grant from government". The annual fee was last increased in 1959, when it was raised from \$150 to \$300.

In discussion concerning new terms of reference for the Planning & Resources Committee, members endorsed the amended version of the terms of reference proposed by the administration which adds the planning of enrolment and academic services (including computing, library, and the use of TV and other media) to its sphere of

responsibilities. In addition, the committee will retain responsibility for reviewing and approving plans for establishing and discontinuing academic programs.

The next meeting of Planning & Resources will take place Nov. 20.

University organist sought

The President has named a committee to nominate a University organist, to play for all University ceremonies and to be responsible for the use of the Convocation Hall organ. This is a part-time position, held most recently by Dr. Healey Willan and Dr. Charles Peaker.

Nominations or applications should be sent, before November 15, to the Office of the President, Simcoe Hall.

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Universities and Colleges

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INTERIM REPORT

of the

COMMITTEE TO REVIEW THE UNDERGRADUATE PROGRAM

to the

DEAN OF THE FACULTY OF ARTS & SCIENCE



INTERIM REPORT

of the COMMITTEE TO REVIEW THE UNDERGRADUATE PROGRAM to the DEAN OF THE FACULTY OF ARTS & SCIENCE

We the committee appointed by you to examine and report on the undergraduate curriculum in the Faculty of Arts & Science respectfully submit the following interim report.

In March 1977, Dean A.M. Kruger, Faculty of Arts & Science, established a committee to carry out a task which had been approved by the following resolution of the General Committee:

That a committee be appointed to review the structure of the present curriculum in the Faculty of Arts & Science.

The Dean charged this committee with the task of "examining the current undergraduate program and reporting to the Dean on appropriate modifications". Its members are John Kelly (chairman), Robin Armstrong, K.M. Cunnison, Ian Drummond, Jane Millgate, Brian O'Riordan, Pat Wilson and Leo Zakuta. Richard Brott served as secretary and W.D. Foulds as assessor to the committee. The committee met weekly in April, May and June and in September and October. In addition to 18 regular meetings, the committee held an open meeting at Woodsworth College and met with the committee that is reviewing the *Memorandum of Understanding*. Two members of the committee also attended an open forum on curricular reform at Victoria College.

The committee invited submissions, briefs and representations from the University at large; advertisements were placed in *The Varsity*, *The Voice* and *The Bulletin*; invitations were sent to University departments, the colleges and the various student organizations. In all, by October 23 the committee had received more than 40 submissions. It also had available the Report of the Committee on Admissions Criteria chaired by Professor R.M.H. Shepherd.

At an early meeting the committee decided to issue an interim report in mid-autumn 1978 and a final report by April 1979. The interim report is meant to put the committee's ideas before the University community in a tentative and preliminary form in the hope that they will be discussed widely among students, faculty members and administrators, and in the departments and colleges. The committee will continue to meet during the winter and will welcome written responses to its interim report. Such communications should reach the chairman no later than January 15. These should be addressed to the secretary of the committee, Richard A. Brott, Assistant to the Dean, Faculty of Arts & Science, University of Toronto.

The balance of this report is divided as follows:

In the first part we trace the curricular history that has brought the Faculty to its present position, and in the second we set forth our own approach to the curriculum; the third part is a summary of the briefs and submissions that we have received. In the fourth part we present the recommendations that we are at present disposed to make, and in the fifth and final part we sketch some of the matters on which we are not yet prepared to make recommendations.

PART I

HISTORICAL BACKGROUND

It is convenient to begin this survey with the "Macpherson Report", *Undergraduate Instruction in Arts and Science*, which was published in the summer of 1967, but first one must say a little about the existing system—the Old Programme—from which the Macpherson Committee began.

The Old Programme had not been immutable. Between 1945 and 1968 the general course was renamed, and reformed at least twice, and within the various honour courses or programs, despite a tendency to ossification in certain areas, changes were by no means infrequent. Nevertheless, the essential outlines of the Toronto arrangements had remained steady for many decades—at least since the abolition of Grade Twelve entry in the early 1930s. Students were admitted either to honour or to general courses; once admitted, general and honour students were taught separately; while honour students could shift into the general course, general students could not become honour students without loss of time, although by remaining for a fourth "make-up year" after receiving the general BA they could attain more or less the same level of specialist training as the honour students. Full-time students were promoted by year; the Faculty was not on a credit system. Part-time students could enrol in the general program, completing it on a credit basis, but they could not take honour degrees. If a full-time student failed some of his work in a particular year, it was often difficult for him to retain credit for the work he had successfully completed. In each of the several honour courses, the year-end examinations were conceived to be a single assessment. The weights of the various papers and subjects could and did vary from course to course. Indeed, the weighting was part of the course structure. Honour students were graded by class, and the first and second class students were ranked; these ranks were public knowledge. Many honour students established strong personal connections with one another, and with their departments. The system of instruction and examination encouraged this development. It also allowed the faculty in a department to identify "our students". These relationships were important alleviations of the impersonality of the University, and they did not compete with college affiliation. Regrettably part-time and general students could not share in them.

The Macpherson Report examined many aspects of the undergraduate experience. Much of the report was devoted to "Teaching and Learning"—the number and utility of lectures, the relation between lectures and examinations, useful and useless lecturing, and the proper balance between tutorials, discussion classes, and laboratories. A good deal of attention was also given to the quality of teaching, student-faculty relations, libraries, and other matters not directly related to "The Structure of Degree Programs". Indeed, the report devoted only 30 pages out of 149 to structural questions and problems.

Nevertheless, the present summary concentrates on these structural questions, because these may give us some assistance in our present perplexities.

The Macpherson Committee found the Old Programme defective in several respects. General and honour students were almost never taught together. The generalist was offered too narrow a range of courses. Many honour courses began at University entrance, thereby requiring too many students to make too early a choice. It was difficult—often impossible—to move between one honour course and another, or from the general to an honour program, without loss of time: often, indeed, a student would have to go back and start all over again in first year. There was no four-year degree for generalists, while "concentration" within the three-year degree provided only limited specialisation, and little or no choice within a specialisation. As for the honour courses, some of these had become over-elaborated and over-subdivided, even though they could no longer claim to provide a full professional formation. Increasingly, therefore, the honour courses were oriented toward graduate study, though few honour graduates in fact entered graduate schools; meanwhile, it had become increasingly hard to defend the proposition that honour courses, as such, provided good education.

In an attempt to prescribe for these ills, the Macpherson Committee devised an ingenious curricular structure. There would be a common first year with a distribution requirement. At the end of that year, each student would become a specialist or a generalist. Within each specialist program things would continue much as in the old honour programs, except that the imperial tendencies of departments would be restrained so as to leave some room for general education and student choice. To some extent the generalist and specialist students would be taught together, thus widening the range of course choices for generalists; on the other hand, some courses would be reserved for specialists. After three years in university, both generalists and specialists would receive an ordinary degree (BA, BSc, or BComm), and after four years, both specialists and generalists would receive an honour degree.

In this structure the first year was of critical importance, and the Macpherson Committee worked hard on its elaboration. Student choice was to be guided by a distribution requirement: every student was to take five courses, covering at least two of the three divisions (humanities, social sciences, and mathematical, physical, and life sciences). No student could take more than two courses in any subject (English, economics, physics, or whatever). Similarly, departmental ingenuity and assertiveness were to be controlled by a curricular plan. For each subject there would be one *basic* course, and perhaps one or two *additional* courses, while in physical and biological sciences there might well be *combined* courses, and in mathematics and English there should be *collateral* courses "designed for those who need or want some work in that subject, contributory to their expected

main work, but who do not need or want as much or as rigorous work in that subject as do those who expect to make formal courses in it a continuing part of their work". The additional courses could be taken only by those who were also taking the basic courses. This arrangement provided for voluntary early specialisation, at the student's initiative. On the other hand, the committee suggested various rules which would have protected the first year student from departmental tendencies to determine the content of the first year by an over-elaboration of requirements for entry to particular specialist programs at the beginning of second year. While some specialist programs might have to require the basic course as a pre-requisite, no specialist program should require any additional courses as pre-requisites; no specialist program should require more than three specified first year courses; so far as possible, departments should avoid first year specifications.

Since some of the thirty old honour courses did not have first year specifications, these could have continued as specialist programs under the Macpherson regime with no change whatever. The Macpherson Committee recognised this fact. However, those which had begun in first year, with a more or less completely specified first year honour program, would have had to be redesigned. With respect to the design of specialist programs the committee had little to say. These designs, it observed, must be worked out within and between the teaching departments. Nevertheless, it did suggest that "no student should normally be required to carry more than five courses a year", and that "there be in each specialist program ... one completely free option" in each of the second, third, and fourth years. The committee also observed that in its regime some of the extreme specialisations of the old honour program would no longer be needed, and it suggested that everyone should "consider and keep under review the possibility of reducing the present number of separately organised degree programs".

As for the general program, the committee proposed that in each year the generalist should take five courses, spread over at least two divisions, and that "as a general rule students should continue most of their second year subjects into third year". However, it did hope that there might be various sequences that students might follow, and that "a few subjects that could be begun in third year might be offered". This scheme would have permitted, but not required, the same degree of concentration as the old general courses. The committee expected that specialists could readily transfer into the general program at the ends of second and third year, but that transfers in the other direction, though often possible, "would have to be more limited", especially in some of the languages and natural sciences. No one—specialist or generalist—could continue into fourth year without first or second class standing (A or B) at the end of third year. Those who could not continue, or who chose to stop at that point, would receive an ordinary degree.

The New Programme has caused trouble for administrators and departments because students have tended to concentrate in certain courses, especially in first year. For some time, the pre-medical subjects were exposed to extreme pressure; some social science subjects and also commerce have experienced a more consistent and long-lasting pressure. The Macpherson Committee did not foresee such problems, and did not discuss them. Its distribution requirement would have controlled them, but only to a very limited extent. If it had foreseen them, it would probably have recommended that the University respond by providing the necessary staff. In the optimistic 60s such a recommendation would have been understandable, and perhaps sensible.

About the colleges the Macpherson Committee thought long, and seriously. There is no point in reviewing its recommendations here, as the *Memorandum of Understanding* has fundamentally changed the situation to which the committee addressed itself. Nevertheless, there is one point that deserves to be noted. We are sometimes told that the New Programme created the "college problem", by allowing students to avoid the things the colleges traditionally taught and by proliferating courses to an extent that the colleges could not handle. If we are to judge by the evidence that the Macpherson Committee assembled, things were not so simple. There had been a "college problem" for a long time. For decades students had been drifting away from the things the colleges taught; at least since the Woodside Memorandum of 1959 people had been trying to revivify the college system.

Admittedly, for the college subjects the Old Programme did provide some protection. For example, honour English required classics in translation, though not under that name; religious knowledge was required at Trinity; some honour courses required philosophy. Also, because the college subjects were involved in the more elaborate and completely specified of the honour courses, they derived some protection from the fact that no student could study any of their subjects seriously without studying a great deal of that subject, and, furthermore, pursuing that study almost entirely within the walls of his own college. Further, since honour and general students were taught separately there was a great deal of work for each college department, even if its classes were often extremely small. Finally, the distribution requirements in the old general program, and in first year social and philosophical studies, directed some students into the humanities, some of which were college-based.

The Macpherson scheme would have retained some of this protection, but not all. The one-hour religious knowledge option was to vanish from the new specialist programs, and some classes were to contain both specialist and generalist students. But there would still have been a distribution requirement, and departments could still have inserted particular college-based courses into specialist programs.

In the academic year 1967-68, the University did not quite know what to do about the Macpherson Report, or with it. In some departments there were movements toward a common first year, as honour and general teaching and examining began to be integrated at that level. But among the faculty there was widespread resistance to the "Macpherson Package",

whose precise contents were not widely understood. The various committees and councils, which then contained no students, evinced a tendency to deadlock. Eventually matters were referred to a "Macpherson Implementation Committee", under the chairmanship of Dean A.D. Allen of the Faculty of Arts & Sciences.

The Allen Committee reported in August 1968. It was a subcommittee of the Undergraduate Committee of the Faculty. The University was not to be placed on a credit system, though in each year there were normally to be only five courses. In first year there were to be no named or prescribed programs of study, and no student could take more than two courses in any one subject. However, "beginning with the second year a number of named specialist programs may be defined and stated in the *Calendar*". On entering second year a student might identify himself as a specialist, but "if he chooses not to do so then he would be considered a generalist". Pre- and co-requisites were to be stated for individual courses, not for programs. Specialist programs were to extend through second, third, and fourth years, and in each of those years the specialist student was to be allowed at least one "free option". Grading was to be by classes (I through BL to F). Final examinations were prescribed in first year, but optional in higher years; "where no final examination is held in a course the teaching year will continue until the end of April". Standing was to be graded on the work of the year as a whole, and students in Class I were to be ranked. "Any student who obtains II Class standing (70% or better) in his third year program may enrol in a fourth year program. If he is successful in his fourth year he will be awarded an honours degree ... with an appropriate class of honours". Dean Allen later wrote that for the numerous students who want a general education the "new program offers exciting possibilities ... environmental studies, the Renaissance, method and ideas of groups of disciplines, and effective presentation of the modus operandi and the rationale of the scientist for non-scientist, religious studies ... The Faculty will encourage an experimental approach to the aims of a general education valid for this day and age". Meanwhile, by November, the requirement for entry into fourth year had vanished, and Allen then wrote, "In total, the New Programme follows, at least obliquely, from 33 of the 98 Macpherson recommendations".

The Allen Committee report went to the Committee on Undergraduate Studies on Sept. 24, 1968. The latter committee passed the report to Council, recommending a second set of departmental "briefs". Council set up an implementation committee, chaired by Professor P.W. Fox. This turned into a parity "Committee of Fifty", which proceeded to revise the Allen Report, abolishing the distinctions between programs. The report of this committee in turn, was passed by Council in November 1968. At this stage the New Programme applied only to the first two years. Later it was extended to cover the last two.

The author of an anonymous memorandum has suggested that "almost all of the differences between the Macpherson report and the New Programme ... [arose] not ... in a positive sense from anywhere, but were the result of two basic forces: (a) practicability ... (b) political possibility—freedom of choice for students' as an abstract principle (from an Allen/Hallett motion of Council) of knee-jerk 'liberal academic' politics did battle with an abstract cry for 'enrolment limitation'

from 'conservative academic' politicians and the former basically emerged victorious as a principle ... a case of seat-of-the-pants development of a program, heavily supported by Dean Allen and 'inspired' by Macpherson".

The intake of autumn 1969 was the first of the New Programme. By Jan. 30, 1970, the A, B, C, D grading scheme had replaced the ancient system of "classes" and it had been decided to identify three-year and four-year degrees, as such, on transcripts. But echoes of the past were still heard: Dean Allen and Assistant Dean W.D. Foulds wrote of "the present four-year (honour) degree". Indeed, honour students graduated in June 1970. But in the New Programme nobody was to register as a specialist student, in any year. Nor were specialists to be certified or identified. "Minor programs" had not yet been invented, or imagined.

In April 1972, the General Committee asked the President to set up a committee to review the New Programme. President Evans proceeded to do so, and the result was the Berlyne Report, which appeared in the spring of 1973. The Berlyne Committee found that the submitters of briefs favoured the "free-choice system" of the New Programme. On the other hand, it observed the loss of "sense of comradeship", and the pedagogical disadvantages when classes contain students of widely different backgrounds. It concluded, "We believe that the possible benefits of reintroducing the Old Programme would not justify the great harm that would be done ... We believe that it is possible, however, to alleviate some of the problems ... without incurring the major drawbacks of the old system". Hence they recommended that boards of studies singly or in pairs should offer "major" programs, but that there should also be "theme programs" and a "liberal-arts program". The colleges, it hoped, would lead in the development of theme programs. A student who wished to be certified was to indicate this at the end of his second year, and the certification was to appear on the transcript. A major was to consist of from nine to 16 courses; thus it corresponded to the present specialist program. Students could shift from major to major at any time, and no one was to be required to register in any major. The credit system was to be introduced, and the three-year and four-year degrees were to be retained, but re-defined in terms of credits. Students could remain attached to the college in which they first registered without having to shift into and out of the Division of Extension as and when their statuses changed. One could be certified as having completed a major even if one was not taking a four-year degree. To handle the problem of the pre-medical and pre-dental student, there would be two two-year pre-health sciences programs.

The Berlyne Committee worried about the first year. It wanted staff to spend more time on personal contact with students; it thought that "as many introductory courses as possible should be organised as lecture-seminars, limited to a maximum of 50 students per class", with more emphasis on discussions, tutorials, workshops, and labs, and less on lecturing. Every student should have two such lecture-seminar courses during his first year. There should be lots of multi-media self-instruction available; the colleges should explain themselves to incoming students.

The committee also worried about the fourth year, hoping it could be "a blend of seminars and independent study", organised round "a major project". This idea obviously sprang

from the sort of honour course that exists at some Canadian universities and many American colleges. It had no roots at Toronto, and Macpherson had not mentioned it. Every student was to plan his year, present the plan for ratification to a board of studies, and embark on it only after approval. A student could enter on the fourth year without having been certified in anything, nor did certification necessarily follow on the completion of the fourth year.

For integrating the work of the majors, the committee proposed "special integrative seminars"; to reduce *Calendrical* chaos, it proposed "a periodic and intensive review". For better teaching, tutorials, counselling, and the like, it provided a series of well-meant recommendations. And it suggested that the commerce and finance program might well be transferred to the Faculty of Management Studies. About the colleges it had rather little to say, proposing a faculty teaching bank and a range of intercollegiate departments. For part-time students it proposed "College X", and for interdisciplinary studies, a department.

In a minority report, Professor F.W. Watt argued against the introduction of the credit system, and in favour of continuing the year system. Though a portion of the faculty felt much the same way, the General Committee voted to implement the Berlyne Report. That implementation took the Faculty toward the present arrangement.

After amendment in the General Committee the Berlyne Report was referred to an implementation committee, which, in December 1973, generated the Foley Report. The Foley Committee thought the Berlyne terminology cumbersome, proposing instead that the faculty offer *specialist programs* of nine or more courses, *minor programs*, of six to eight courses, and *liberal arts programs*, these last to be defined by the Liberal Arts Program Committee. The transcript was to be endorsed accordingly. The Faculty was to "recommend" that each student affiliate either to a specialist program or two minor programs, but no student was to be "required to structure his degree program in this way". Students were to indicate when pre-registering what program(s) they would follow. As for the problem of pre-medical and pre-dental education, the Foley Committee recommended further discussion. As the General Committee had resolved that the term "honours" be re-introduced not as a course-designation but as a certification of "appropriate academic standards", the Foley Committee also generated a scheme of labyrinthine complexity by which the designation "honours" would be awarded, on student petition, by an Honours Board. If this proposal had been adopted, a student could have graduated with honours at the end of a four-year degree, but without necessarily having completed a specialist program.

The General Committee had already defeated the Berlyne proposal about commerce and finance. In due course it approved the Foley Report, with some amendments, but it rejected the Foley definition of "honours"; though some further committee work was done on the idea of a liberal arts program, nothing has ever come of this scheme. Thus we are left with the New Programme more or less as Berlyne and Foley envisaged it.

The result is a considerable retreat from the full flowering of freedom to which the New Programme first committed the University. Now we have defined programs of study that come to look more and more like the

former honour programs, or like major programs in other universities. After the Berlyne Report came the *Memorandum of Understanding*, which through the colleges gave a further push toward the development of "theme programs". Though several such programs now exist, they have in the *Calendar* assimilated themselves to the other specialist programs, and few of them have attracted large numbers of students. The departments, meanwhile, have devoted great labour to the elaboration of specialist and minor programs. In many departmental and inter-departmental specialist programs the prescriptions plus pre-requisite have reproduced most of the structure that the Old Programme offered, while allowing a wider choice of courses to the students who are not specialists. On the other hand, the present system has not alleviated the problems that worried the Berlyne Committee. Few students appear to have any strong identification with other groups of students, with departments or even with colleges. There are still problems about mixed-ability classes, about sequencing, and about pre-requisites or the lack thereof. It is now true that half of the four-year students are certified in specialist programs. Four percent of four-year students and 10 percent of three-year students are certified in minor programs.* There is now a sizeable population of fourth year non-specialist students, but in many departments there is little of the special fourth year atmosphere that Berlyne and Foley had hoped to foster. Perhaps it has been killed off by lack of money.

Meanwhile, the controversy has continued. Though staff and students have settled down with the modified New Programme, queries and criticisms have never been absent. At Erindale, the college developed a "New New Programme", complete with distribution requirements and compulsory minor or specialist programs as degree requirements. After great discussion, the General Committee agreed that Erindale would offer its New New Programme, somewhat modified, beginning in 1980. In 1977-78, Harvard University proposed, amidst considerable publicity, to return to a more structured curriculum. There was reason to suspect that some students were dissatisfied at Toronto, and reason to believe that many of the staff were not altogether happy with the New Programme. At Toronto, as elsewhere, there were suggestions about more structure. Further, the colleges had become more vocal. Stripped of their old departments by the *Memorandum of Understanding*, they wanted to teach more of their own students and perhaps to control the programs of undergraduate study. Dean Kruger believed that the Faculty should ensure that students were educated both broadly and deeply; he did not believe that unaided student choice could always be trusted to produce either breadth or depth. There were signs that some graduands felt that they had spent three years at university, or even four years, without really mastering anything. By early 1978, University bodies were scrutinising the *Memorandum of Understanding* and thinking hard about admission requirements, and the time was obviously ripe for yet another curriculum committee.

PART II

OUR APPROACH TO THE CURRICULUM

It is often suggested that before one can plan a curriculum one must decide on certain fundamentals—the aims of university education, or the things that every graduate should know. That view is represented on the committee, and in some of the submissions to it. Nevertheless, the committee has decided not to erect its superstructure on any such explicit foundations. Our reluctance has several origins.

First of all, we think that in a large present-day university like Toronto different people are bound to have very different ideas about what these foundations should be. In a large secular university the task of the curriculum-builder is not to generate disputes about the foundations but to generate a superstructure within which people of diverse orientations can live and work and learn. Two people who differ as to ends may support the same means in the belief that the means will serve either or both of the ends they have in view.

Second, some of us think that through the college system the University may be able to provide for diversity in unity. That is to say, the colleges might be able to develop their own views about some aspects of the University experience, and the University curriculum might allow this to happen without requiring it to do so. We have tried to develop our curricular recommendations with this possibility in mind, though we are far from certain that the colleges, as at present staffed and arranged, could undertake the necessary curricular development without help from the University departments.

Third, several of us have been depressed by the very general and vague statements that so often masquerade as "educational aims". Of course if people differ fundamentally they can agree only on the vaguest of such statements; we would rather omit the vagueness, thereby recognising the diversity.

Fourth, we are impressed by the fact that any curriculum, no matter how logically constructed, no matter how precisely deduced from a consistent philosophy of education, must operate with living human beings—both students and professors. Neither teacher nor student is infinitely malleable; especially nowadays, no institution can hope to staff or re-staff itself in accordance with some ideal pattern of teaching and learning. At the University of Toronto we shall all have to live together, accepting the facts about ourselves. Among these facts are the following. Many of our students arrive without any clear idea of what university is about, or of why they are here. Our staff comes from a variety of backgrounds, bringing to the Toronto scene a variety of approaches and assumptions.

Finally, we think it reasonable to suppose that an approach to university education can and does emerge through a series of piecemeal changes by which an existing fabric is modified, or remodelled. It is never really possible to begin with a *tabula rasa*, unless one is founding a new university. Even the New Programme contains, in the course offerings and in the structures of specialist programs, many echoes of the Old. If the New Programme were functioning well, satisfying most of the staff and students who work within it, there would be no need to scrutinise it. On the other hand, an effort such as ours makes sense only if some substantial

part of the University community is dissatisfied with the existing program. Here we encounter two difficulties. The discontented may be more vocal than the contented; both contented and discontented have only a limited amount of time to think about education, and only a limited experience of the possible alternatives, both past and present. The committee cannot simply reflect in its recommendations the discontent that is reported to it. We must be prepared to think for our constituency and to develop a prescription that will improve the quality of our efforts as teachers and students.

We start with certain assumptions. We believe that in a university people should be studying things seriously and in depth. We think that it is seriousness and difficulty that mark university study. One purpose of the program is to require, not just permit, that sort of study and that sort of teaching. University teachers are overwhelmingly serious about their subjects. So are the vast majority of students. But experience suggests that some sorts of university program tend to re-inforce that seriousness, while other sorts tend to weaken it, making it harder for students to be serious about their studies and harder for instructors to treat their subjects seriously. The program of study, we think, should protect the students against irresponsibility or silliness on the part of some staff people, while protecting the staff against certain student pressures or demands that may well be ill-informed or thoughtless. It follows that we do not like the idea of offering courses simply in response to student demand, or simply in response to the private obsessions or simple presence of the faculty. It also follows, though less obviously, that we tend to favour sequential study, by which student and instructor move together from the relatively simple to the relatively advanced. These sequences, we think, must often extend through two or more years.

We think that the curriculum should encourage the development of human contacts and coherent communities within the very large and impersonal fabric of the University. Such developments are of value to the students, for whom they provide structures, guidance, counselling, and, often, assistance in such mundane matters as graduate fellowships and jobs. They are of value to instructors, many of whom are disheartened by a system that requires them to deal with an ever-changing mass of anonymous units identified only by their student numbers. Some of us believe that students will learn more, with less strain and much more enjoyment, if the University provides opportunities for contacts with other students and with the academic staff.

We think the curriculum should help the student and the instructor to explore the inter-relatedness of things. Here the student is at a disadvantage, since no course description can properly reveal what a course is about, or how it relates to other courses. One learns about these inter-relations only by actually studying the subjects themselves. Here the staff, who have actually studied the subjects, must try to help the students find the connections. This help cannot be provided, we think, wholly or mainly by full-time professional counselling. There are too many students to be counselled, too many unexpected or unexpressed questions to be answered, and too many possibilities, with no hope of

enough counsellors. We think the curriculum and *Calendar* should do much of the work of the professional counsellor, over-worked and incompletely informed as counsellors must so often be; the curriculum, in other words, becomes a means for helping the student to make something out of the university experience.

We think matters should be arranged to reduce, or perhaps to minimize, the amount of time and effort that students and instructors must spend on administering themselves and the program. We are in university to teach and to learn and to do research, not to move pieces of paper and not to sit on committees and boards. We think the University experience can be happy and rewarding only if there is a modicum of order in our arrangements; it is all too easy, especially in a very large university like Toronto, for people to conclude that, "things are out of hand". This conclusion can and does produce a breakdown of morale. Among the staff, it can produce a flight to graduate teaching, where things are more manageable and where the goals are clearer; among undergraduate students, it must also lead to a suspicion that the whole university exercise is pointless.

It follows that we are not inclined to favour the sort of "unstructured" arrangement that the New Programme offers. While we recognise that it seems to promise the student a most attractive freedom of choice, we suspect that this freedom often proves illusory in that the student is given so little guidance about the choice of paths along which experience has suggested that movement is generally fruitful. Also, many students seem to discover too late that they cannot do certain things in the upper years because they did not do the necessary preliminary work in the lower years. None of us wants to devise a program that forces all students to do the same things. We are equally opposed to a program that prescribes all of a student's studies. It was by thoughtless over-elaboration in such directions that the University's Old Programme acquired a bad name. Also, we dislike the attitude to university education that the present arrangements seem to encourage. Confronting a vast array of choices and told to do what they like, students are bound to see the University in a consumerist light. It is hard for the student to avoid the conclusion that the University's proper business is to provide the courses he wants on the terms he wants them. Faculty members, on the other hand, may readily turn into hucksters, fighting for students in classes and in departments. We believe that in some departments this has happened since the New Programme was adopted. We think it idle to pretend that the University's procedures are sufficiently rigorous to protect students against the effects of the staff's desire for students. After all, there is more to this competition than meets the eye. It is not just a matter of student bodies to justify a course, an appointment, or a budget-increase. One must admit that faculty self-esteem is involved too.

It is now more than a decade since President Bissell complained about "double innocence". He noticed that the Senate decided on academic matters, but ignored the financial implications, while the Board of Governors ignored academic matters while wor-

*The committee has reviewed detailed statistics of these certifications which will be published in the final report.

rying about finance. It is now clear that double innocence did not expire with the bicameral system. Indeed, we think that in the curricular decisions of the past decade it is very much in evidence.

We have given some thought to questions of distribution requirements, in relation to the question of what a university graduate ought to know. We are opposed to the usual sort of distribution requirements (humanities/social science/science) partly because we do not think that in their usual form such requirements do much for the student, and because we fear that instructors do not like to teach such courses or teach them well. We also think it should be remembered that the University is not the only place where people learn. The high schools can and should provide pupils with basic grounding in mathematics, science, history, and literature—especially in Ontario, where high school goes on a year longer than in most places, where for many students the university experience is one year shorter. With respect to basic numeracy and literacy, these are matters for the school, and at least for the present we think the University should not try to do what the schools have failed to do. Of course a graduate should be numerate and literate and ideally should have a working knowledge of a second language. In our view these should be specified in the University's entrance requirements, not its exit requirements.

PART III

SUMMARY OF POINTS RAISED IN SUBMISSIONS TO THE COMMITTEE

The committee asked for submissions from the University community through advertisements in the campus media in late March and early April, 1978. The chairman of the committee wrote to departmental chairmen, college principals, and to the presidents of various student organizations urging them to make formal submissions so that the committee could have a "general indication of what these groups would like to see retained in the current program, the things which should be changed and any positive recommendations which they may have to assist it in its work". The deadline for these submissions was June 30. The committee received over 40 briefs and letters*. Some submissions had been formally approved at the departmental or college council level, others were sent on behalf of departments or colleges by subsidiary council committees or by chairmen or principals, and there were also many individual letters. Three student organizations submitted briefs. All these briefs and letters were helpful in assisting the committee in this first stage of its work, and the committee thanks all those who made submissions for taking the time to comment on matters relating to the New Programme.

In general, we found that respondents were quite critical of the current curricular, administrative and counselling arrangements within the Faculty. Certain "improvements" were suggested over and over again in the briefs and letters. These can be listed as follows:

A. More structure

both in the design of specialist and minor programs, and in the composition of the individual student's 15- or 20-course program.

B. More concentration

or at least some concentration. This usually took the form of urging that all 15-course programs include at least a minor and that all 20-course programs include an area of specialization or two minors.

C. The need for breadth and the avoidance of over-specialization

Suggestions were made concerning discipline distribution requirements—sometimes in terms of restricting the number of courses required for specialization, sometimes in terms of spread of courses and sometimes in conjunction with a college sequence proposal. Others disagreed with such proposals on the grounds that they were unduly restrictive and advocated restructuring and re-thinking the present course offerings and program options before considering any change in degree requirements. Many respondents recommend that specialist programs have no more than 12–14 required courses.

D. More college involvement in academic programs

i.e. something beyond the provision of residences, parking or even counselling. There was a general feeling that the colleges should be re-integrated into the academic lives of all students. Suggestions for achieving this varied considerably. Some colleges and various individual respondents stated that the way for the colleges to re-assert their teaching role and to re-vitalize the concept of the colleges, was to allow individual colleges to compel all of their students, regardless of their area of concentration (humanities, natural sciences, social sciences) to take some courses during their undergraduate career at their own particular college. In certain cases, the colleges would be willing to develop sequences of courses (probably three or four, i.e. one per year) which a student would be required to take. It was envisioned that these sequences would allow the student to fulfil specific subject area distribution requirements, especially in the case of science students. Other respondents expressed some doubts about the wisdom of allowing the institution of "college sequences", feeling that their compulsory nature would be resented by students, and that they might not possess sufficient academic merit. An expansion of college "sectioning" of large courses was also suggested.

E. The recovery of something that was lost with the abandonment of the honour program

It was recognized that the New Programme had done a great deal for the general and the part-time student. However, it was suggested that it was not so well adapted to those students who had been well served by the old honour program. It was maintained that students engaged in a high degree of specialization no longer have the sense of progressing through a body of material with increasing mastery, that they have lost the advantages of working with an identifiable peer group and close supervision by their department, that the unit has become the course and not the year, and that indefinable but genuine advantages associated with the actual honour degree concept are being denied to University of Toronto students though they remain readily available to students in other Canadian and Commonwealth universities.

F. Improved programs of academic counselling

It was felt that counselling has not developed to the level and degree that were envisaged for the New Programme. This has worked to the disadvantage of the Faculty as a whole. Many respondents suggest that the colleges in particular should be more involved in this area.

G. Improvements in the Calendar

It was felt that the *Calendar* has become a confusing and often inadequate document for the purposes of academic counselling. It was suggested that it lacked both clarity and cohesiveness, and that it could benefit from the adoption of some common-sense editorial principles.

PART IV

RECOMMENDATIONS

Our primary aim is to ensure that each student's program of study has academic worth and coherence, and that it provides a cumulative experience of increasing knowledge and mastery in a chosen area while at the same time requiring the inclusion of courses in more than one discipline. In a Faculty as large as ours feelings of anonymity and impersonality can be mitigated by the special role of the colleges, but much can also be achieved by the formal association of students with particular programs whose courses they follow in an ordered pattern.

To achieve these aims we make the following recommendations:

A. Programs of study

1 That the following programs should be available:

(a) *Specialist programs* of at least nine and not more than 13 courses* in a four-year (20-course) degree.

For degree programs involving more than 20 courses (commerce and finance), the maximum requirement should not exceed 75 percent of the total coursework required for the degree.

(b) *Combined specialist degrees* of at least 12 and not more than 16 courses in a four-year (20-course) degree combining two or more subjects and jointly submitted by two or more departments and/or colleges.

(c) *Major programs* of at least five and not more than seven courses.

(d) *Minor programs* of three or four courses.

2 That these programs be offered by individual departments, by groups of departments, or by colleges.

3 That these programs be so designed that higher series courses be more advanced than those of lower series and build clearly and specifically upon them.

4 That the year be re-introduced as a unit of curricular planning and *Calendar* description so as to offer guidance as to level and sequence.

5 That major, specialist, and combined specialist programs be so designed that a student choosing to graduate after completing the first three years of a specialist or combined specialist program and a total of 15 courses can be certified as having completed a major. (This provision is needed to protect the student who embarks on a specialist program but who does not continue into fourth year).

B. Degree requirements, registration, and academic counselling

1 That all students graduating with a three-year (15-course) degree be required to complete a major program.

2 That all students graduating with a four-year (20-course) degree be required to complete either a specialist or combined specialist program or two major programs.

3 That all students graduating from a three- or four-year degree program be required to complete a minor program in a subject different from their specialist or major program, but that this requirement not apply to students who have completed one of the following: (i) a combined specialist program, (ii) a specialist and a major program, (iii) two major programs.

4 That all students be required to register with their college registrars in a specific major, specialist or combined specialist program and a minor (if required) at the beginning of second year, and to confirm or alter that registration at the beginning of each academic session in which they enrol; and that the Faculty make available to registrars the information necessary to ensure that students cannot enrol in courses for which they are not qualified—in terms either of year or of pre- and co-requisites.

5 That the Faculty be prepared, through its curriculum committees, to consider applications by students wishing to follow a coherent program differing in important respects from the specialist, combined specialist, and major programs listed in the *Calendar*. (Approval for such planned programs would have to be requested in the spring, at the end of first or second year, and be accompanied by a detailed listing of courses to be taken and a rationale for the program. Applications at a later stage for retroactive approval of completed combinations of courses would not be considered. Rulings would be given by early summer, well in advance of registration.)

6 That the design of programs be the responsibility of the sponsoring departments or colleges and involve full participation by faculty and students. That the appropriate Faculty of Arts & Science committees on curriculum and academic standards assess all such programs in terms both of their individual merit and of the total size and range of the Faculty's pattern of offerings.

7 That the Faculty improve existing academic counselling services (including the *Calendar*) so as to ensure that students are fully informed about different programs and the available choices within programs.

C. The three Rs

1 That the University co-operate with the secondary schools, in the manner suggested by the Committee on Admissions Criteria (Shepherd Report) to foster the teaching of English, mathematics, and second languages as part of a broadly based educational system in the Ontario schools, but that students in this Faculty not be required to include these subjects in their programs at University.

2 That competence in English be tested by the new regulations already approved by the Faculty.

3 That the Faculty, in conjunction with the colleges, continue to support and expand such facilities as writing laboratories and mathematics aid centres to assist students with specific difficulties.

4 That the Faculty of Arts & Science ensure that all its teaching staff, no matter what their department, actively concern themselves with the quality of written assignments, take account of that quality in their evaluations, and offer suggestions as to ways in which students might improve their written assignments in the particular discipline concerned.

*A complete list of those who made submissions will be appended to our final report.

*Throughout these recommendations the term "course" means full-year course or its equivalent.

Readers will doubtless see the relation between our major recommendations and the approach to the curriculum that we set forth in Part III. Nevertheless, some of our suggestions need further justification or explanation.

It will be recalled that this committee does not favour the introduction of a distribution requirement at university level. Nevertheless, we are delighted to observe that for Grade 13 the Shepherd Committee plans to recommend a form of distribution requirement, covering English and at least two of the large curricular groupings—languages other than English, mathematics, sciences, and other humanities and social sciences.

If and when such arrangements are introduced for Grade 13, for university entrance, or for both, the case for a distribution requirement at university level becomes even weaker than it would otherwise have been.

Why are we anxious to re-introduce the year? If courses are identified clearly as "for first year students", "for second and higher year students", and so on, departments will have to think more carefully about the level at which a course is supposed to operate, and students will know how much university experience a course is meant to demand. There is no incompatibility between the year and the credit system, and we are convinced that the year would not pose any difficulty for part-time students: one would simply define the year in terms of the number of courses passed. As the year terminology has never really passed out of use, this change in large part would simply recognise reality. Further, it would immensely improve the *Calendar* as a counselling device, and it might allow departments to simplify the maze of pre-requisites, where these are merely meant to safeguard level and where a particular preparation is not really required.

We are anxious that specialist, major, and minor programs be so designed that more advanced courses build on earlier ones, and we think that all courses should not be of roughly equivalent level, and that the official numbering system should clearly reflect these differences.

It will be up to the departments, singly and jointly, and to the colleges, to make sure that the programs are designed in this way. Certainly we would not be satisfied if students were simply directed into the array of programs that the *Calendar* now contains. It is our strong impression that many of the present specialist and minor programs do not display the appropriate degree of sequential development, and that some may not have been thought out with the requisite care. When the New Programme was introduced, departments were forced to redesign their offerings. The same thing occurred, though to a smaller extent, when specialist and minor programs were introduced. If our recommendations are adopted, redesigning will once more become necessary.

We have not accepted the common idea that departments look after disciplines while colleges look after students. We think that through the disciplines, and therefore through the programs and the departments, students can hope to find friends, academic guidance, and the pleasures and satisfactions of shared academic endeavour. We suspect that as centres of interest the colleges can supplement the academic departments but

cannot replace them, and we do not think that they should try. On the other hand, we do not undervalue the colleges' contribution to undergraduate education, and we should like to see that contribution preserved and in some respects enhanced. By associating members of University departments with themselves, colleges can broaden their academic bases and increase the amount and range of teaching that is done within college walls. The colleges can offer personal guidance and supplementary academic counselling. They can design some specialist and major programs. A most important element also is the system of college libraries, which we think invaluable. Finally, with respect to minor programs it is possible to imagine that the colleges might play a special role. We discuss this role in the fifth and final part of our report.

PART V

UNCERTAINTIES AND POSSIBILITIES

In this section we record some of the matters on which the committee is not yet ready to make any recommendation. All are matters that we plan to treat in our final report; none is essential to the main recommendations that we have presented in Part IV. That is to say, one could accept all of Part IV without taking any particular stand on the questions we raise in this part.

1. The colleges and the minor

We have understood that our task is to improve the undergraduate curriculum. We were not appointed to review the *Memorandum of Understanding*; nevertheless, we have given considerable thought to the relation between the curriculum and the colleges.

Several of the college submissions have argued that the colleges should be given some control over their students' studies. The recommendations have varied, but we can simplify matters without doing violence to the essentials of these submissions if we speak of "college sequences" that individual colleges might devise and require their own students to take. For instance, one college proposes to assemble a list of four-course college sequences, drawing on the courses that are already offered in the Faculty. On the other hand, it has been proposed that every undergraduate might be required to complete a sequential minor, perhaps "in another culture". This would be a sequence of two or three courses, and in principle it could include almost any of the Faculty's offerings. Such a proposal logically implies that the minor *not* be based in colleges because most of the relevant departments are not attached to colleges nor are they divided among them. It should also be noted that some colleges do not seem to be very interested in controlling the content of the minor, while others would very much like to offer their own students one or more sequences from which the minor would have to be chosen. The logical way out would be to *require* undergraduate students to take a minor but to *allow* colleges to offer minor sequences. Students would then be free to choose between college and departmental minors; if a college could offer minor sequences that were attractive to its own students then it would succeed in welding a closer academic bond between

students and college, but no college would be able to force its students into its minor sequences.

2 Admission to degree and studies in the first year

We have proposed that in second and higher years, all students should be registered in a major, specialist or combined specialist program. Some observers have argued, in addition, that entering students should be admitted to a particular degree—BA, BComm, or BSc. If students were admitted to a particular degree in first year, there could be variations among the first year offerings and opportunities for students in the three degree programs. Naturally there would have to be a chance for students to move between one degree and another at the beginning of second year, and afterwards, insofar as places were available. It may be argued that such an arrangement would merely recognize the realities; if most entering students *do* have a university goal that involves a particular degree, and if the demand for places in one stream exceeds the University's ability to provide instruction in that stream, it could be fairer to face the facts and admit no more first year students to that stream than the University can admit to second and higher years (after allowing for attrition and for changes in plans). Denied admission to the degree they hoped to take, students might seek admission for one of the other Toronto degrees or, quite properly, choose some other university. It could also be argued that if students have to apply for admission to a particular degree they might consider their university plans more carefully. On the other hand, it is sometimes said that the entering student really does not adhere firmly to any one degree, and that many students would change their intentions after first year in any event. Also, it can be argued that insofar as we want to encourage students to think seriously about the University before coming to it, the same end could be attained by program registration in first year, so long as the programs were sufficiently broad—life sciences, physical sciences, languages and literatures, commerce, social and philosophical studies and so on. But what would these programs mean in terms of the curricular choices that would face any particular student, and what would the counselling implications be?

3. The re-introduction of the term "honour"

No one on the committee wants to resurrect the rigid separation of students, the constriction of opportunities for part-time study, or the invidious treatment of generalists that characterised the Old Programme. On the other hand, several members of the committee believe that by avoiding the *term* honour program we deny our students an appropriate recognition of academic achievement—a recognition that they could earn if they pursued a specialist program in most Canadian and Commonwealth universities. Those members of the committee think that in fairness to our students

we should change the name of the specialist programs to honour programs making no other consequent change in the organization of studies or in the streaming of students. Other members of the committee fear that by re-introducing the honour label the Faculty would encourage a retrogression toward the Old Programme, or that if we were to propose the use of the label we would divert attention toward this peripheral matter and away from the central proposals that we make in Part IV of this report. There is also some fear of confusion between honours as a *grade* (the American usage) and honour as a *course* (the traditional Canadian and Commonwealth usage). Among those who wish to use the honour label once more, it is believed that we should ignore this problem. For this view they offer three justifications. First, the University already recognizes academic achievement by recording the two standings, "high distinction" and "distinction" on the convocation program. Hence we do not need "honours" for this purpose. Second, it is possible to argue that a Canadian university can properly employ Canadian usage. Third, in the hundred year span during which Toronto employed this terminology, it did not cause confusion, whatever else it may have caused. One might also argue that if the public became aware that the University of Toronto was re-introducing honour programs the University's reputation would be improved. On the other hand, one can marshal arguments relating to the bad old ways of the Old Programme, and to the risk of snobbish distinctions between students in honour and major programs, even though the two groups of students would be taught together and even though both groups would continue to have access to the same classes and courses.

Committee to Review the Undergraduate Program

Professor J.M. Kelly, Professor Emeritus of Philosophy, President Emeritus of the University of St. Michael's College, *Chairman*
Professor R.L. Armstrong, Department of Physics
K.M. Cunison, full-time undergraduate student
Professor I.M. Drummond, Department of Political Economy
Professor Jane Millgate, Department of English
D.A.B. O'Riordan, full-time undergraduate student
P.A. Wilson, part-time undergraduate student
Professor Leo Zakuta, Department of Sociology
W.D. Foulds, assistant dean and secretary, Faculty of Arts & Science, *Assessor*
R.A. Brott, assistant to the dean, Faculty of Arts & Science, *Secretary*

October 23, 1978



U of T's expanded home financing program

For a number of years, the University of Toronto, in co-operation with the Canadian Imperial Bank of Commerce, has made available to eligible staff members a program whereby such staff are able to obtain assistance in the purchase of their *first* home in the greater Toronto region.

The University and the bank have now developed an additional program for eligible staff members which provides not only an alternative means of financing first home purchases but also facilities for financing the purchases of subsequent homes or refinancing existing homes. This new program was developed in response to a request by the Faculty Association for a more flexible and expanded plan for assistance in the financing of homes.

Under these programs the applicant's obligations are contractual commitments between the applicant and the bank under which the bank requires that the applicant meet its guidelines of credit analysis and gross debt servicing ratios. These guidelines are established to ensure that the applicant is not undertaking a too onerous burden of debt.

As long as the applicant remains a full-time staff member, a University guarantee of the second mortgage portion of such financing provides a preferential rate of interest on such mortgage.

Features common to *both* programs are as follows:

Eligible employees

Applications for a Home Financing Program loan will be considered from full-time academic staff members and full-time continuing administrative staff members of the University of Toronto, acting individually or jointly, who, it is reasonable to expect, will remain in the employ of the University.

Home eligibility

The home to be purchased or refinanced may be owned by the applicant either individually or jointly (or by the applicant's spouse or partner) and must be within daily commuting distance of the applicant's employing campus (St. George, Scarborough, or Erindale). The home must be a one family dwelling; to be actually and bona fide occupied by the applicant as his principal residence during the tenure of the loan in conformity with all relevant municipal by-laws in effect from time to time, and not employed in any commercial manner. The home must be capable of being mortgaged.

Staff members considering assistance under either of these programs should note that condominium high-rise buildings and stacked apartment buildings are not eligible for financing under program #2. Shares in a housing co-operative are *not* eligible for financing under either program. Condominium town houses are acceptable provided the applicant insures the first mortgage (program #2) against default under the CMHC plan.

Houses not yet built qualify for financing provided that a fixed price and completion date for occupancy are agreed upon in advance and that the house is to be constructed by a qualified builder who is registered under the HUDAC warranty program.

Equity requirement

The applicant must supply a personal equity of at least 10% of the lesser of the purchase price or the appraised value of the property. The equity must be derived solely from one's own resources, without borrowing, and is required to be free of all direct obligation relating to or affecting the mortgaged property.

Salient different features of each of the two programs are as follows:

Program #1

(first home purchase only)

Type of financing

Financing under this program which is approved by the bank's main branch consists of a personal loan provided by the Canadian Imperial Bank of Commerce and guaranteed by the University of Toronto. This guaranty is secured by a second mortgage to the University.

Financing limits

The maximum purchase price of the house will be related to the Metropolitan Toronto Housing Index, established in relation to the sum of \$152,800 as at July 31, 1977. The amount of the loan is limited to a sum equivalent to two times the applicant's(s') annual salary(ies) from the University (individually or jointly) to a maximum of \$40,000.

Term and repayment

The maximum term of the loan is limited to the lesser of (a) 20 years and (b) the number of years to retirement of the applicant (the earlier retirement date in respect to joint applicants). Repayment of the loan will be made in equal monthly instalments of blended principal and interest over the period of the loan.

Interest rates

The guaranteed loan bears interest during the period of the loan at the following rates:

(i) up to 15 years — ¾% above the bank's prime lending rate in effect from time to time

(ii) 16 to 20 years — 1% above the bank's prime lending rate in effect from time to time.

Program #2

(home purchase and refinancing)

Type of financing

Financing under this program which is approved by the bank's main branch consists of a first mortgage loan, granted by Kinross Mortgage Corporation and an *optional* second mortgage loan which is actually a personal loan provided by the Canadian Imperial Bank of Commerce and guaranteed by the University of Toronto. This guaranty is secured by a second mortgage to the University. The first mortgage is available without the second mortgage, however it is not possible to obtain a second mortgage under this program without obtaining the first mortgage.

Financing limits

Maximum financing available under this program is limited to the least of \$115,000, 90% of the purchase price, or 90% of the value of the property as appraised by Kinross Mortgage Corporation, which charges the applicant an appraisal fee of \$85.

Detailed financing in respect of a specific applicant is further limited as follows:

(i) first mortgage — the least of 75% of the purchase price, 75% of appraised value, or \$75,000.

(ii) second mortgage — the least of: 90% of the lesser of the purchase price or the appraised value, less first mortgage; or two times annual salary of applicant; or \$40,000.

Term and repayment

(i) Both first and second mortgages are established, at the option of the applicant, on either a five-year or a three-year renewable term.

(ii) Repayment of both mortgages will be made in equal monthly instalments to include blended principal and interest on a 25-year amortization basis, and one-twelfth of the annual realty taxes (as part of the first mortgage payment, if separate).

Interest rates

Both first and second mortgages bear interest at the same rate related to conventional lending rates and subject to adjustment to present levels at time of renewal, which as of the date hereof are as follows:

five-year term — 11¼% or 11½% depending on the "open" option selected;
three year-term — 11%

Termination of employment/ sale of property

Upon termination of employment or sale

of the property, the first mortgage portion of the loan may be continued or transferred to a subsequent purchaser. However, the University's guaranty with respect to the second mortgage loan will be withdrawn; and the applicant will be required to make satisfactory alternative arrangements for this portion of the financing.

In addition, the mortgages have certain "open" features, and both life insurance and mortgage insurance features are offered.

Applicants for financing under either of these programs should contact the finance officer, Treasury and Trusts, 215 Huron St., room 311 (telephone 978-8739), from whom full details are available.

A.G. Rankin

Vice-President — Business Affairs

Tuition waiver expanded

During salary and benefit negotiations for the 1978-79 academic year the faculty and staff associations negotiated a tuition waiver for dependants of active staff members. Subsequent to these negotiations the administration expanded the program to include dependants of staff who died in service or retired from service. The tuition waiver is effective (retroactively) for the 1978-79 fall academic term.

The academic tuition waiver is available to the dependants of all faculty and staff members of the University and faculty members of the federated colleges (as described in

the *Memorandum of Understanding*) who died in service or retired from service, and held a full-time or part-time appointment of 25 percent or more. In the case of retired or former part-time staff members, the benefit will be pro-rated in accordance with the last part-time appointment held.

The waiver will be applicable to academic programs which lead to a first undergraduate degree or certificate and which do not require prior undergraduate preparation.

For further details or for application forms, contact the staff relations section of the Personnel Department (978-2015).

International Congress

Government assistance is available to persons undertaking to invite an international congress to meet in Canada. Conference Management Associates will provide assistance in concert with appropriate agencies to individuals who wish to develop an effective invitation programme.

This includes realization of receptions and inspection visits by site selection committees, evaluation of possible competitive invitations, development of a formal presentation to the head organization, and development of attractive, well-documented support materials. Travel assistance may also be provided.

For further information contact

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References provided: First Congress on Education; Ministry of Culture & Recreation; Third International Congress on Cleft Palate; Canadian International Philatelic Exhibition; and more.

Events

Lectures

Tuesday, November 7

Advocacy.

The Hon. Mr. Justice John Arnup, Ontario Court of Appeal. First of three 1978 D.B. Goodman Memorial Lectures. Moot Court, Faculty of Law. 4 p.m.

Yemen: Facets of Revolution.

Prof. Robert Stookey, University of Texas, Austin. Upper Library, Massey College. 4.10 p.m.
(Middle East Studies Committee, CIS)

Wednesday, November 8

Advocacy.

The Hon. Mr. Justice John Arnup, Ontario Court of Appeal. Second of three 1978 D.B. Goodman Memorial Lectures. Moot Court, Faculty of Law. 4 p.m.

Thursday, November 9

Advocacy.

The Hon. Mr. Justice John Arnup, Ontario Court of Appeal. Last of three 1978 D.B. Goodman Memorial Lectures. Moot Court, Faculty of Law. 4 p.m.

Tree and Machine: Hardy's "The Woodlanders".

Prof. Mary Jacobus, visiting Cornell University from Oxford University. Upper Library, Massey College. 4 p.m.
(English and SGS)

The Individual — How to make stress work for You.

Dr. Jack Birnbaum, Toronto. First lecture, focusing on stress and the individual, in series of three, "Stress". 2074 South Building, Erindale College. 8 p.m. Tickets series \$6, singles \$3. Information, 828-5214.
(Associates of Erindale College)

Friday, November 10

Anaesthetic Circuits.

Dr. Wolfgang E. Spoerel, University of Western Ontario. 1978 Dr. Murray Mendelson Lecture. Main lecture theatre, Toronto General Hospital. 5 p.m.

Saturday, November 11

Modern Genetics: Utopia or Dystopia

Prof. Louis Siminovitch, Department of Medical Genetics. Convocation Hall. 8.15 p.m., doors open 7.30 p.m.
(Royal Canadian Institute)

Monday, November 13

Reflections on a Correctional Career.

Phyllis Haslam, former executive director, Elizabeth Fry Society. Fifth Sophie Boyd Memorial Lecture. North Auditorium, OISE, 252 Bloor St. W. 8 p.m.
(Social Work Alumni)

Tuesday, November 14

Without Worship You Shrink.

Rev. Dr. David James Randolph, New York City. First of three Cousland Lectures, "Festivals for the Future". Lecture Hall, Emmanuel College. 4 p.m.

U.S.—Soviet Détente: Where Is It Going?

Richard Barnett, Institute for Policy Studies, Washington D.C. American Studies Lecture. Auditorium, Medical Sciences Building. 4.10 p.m.

The Royal Court and the Royal Palace in the Carolingian Empire — Research Aspects and Problems.

Prof. Dr. J. Fleckenstein, Max-Planck-Institut für Geschichte, Göttingen. Upper Library, Massey College. 4.15 p.m.
(Medieval Studies and SGS)

Church Furnishings.

Margaret S. Machell, Art Gallery of Ontario. First of three 1978 Larkin-Stuart Lectures, "Church Art in Ontario". Auditorium, Medical Sciences Building. 8.30 p.m.
(Trinity and St. Thomas' Church)

Wednesday, November 15

Labour Relations in the Forest — A Half Century of Spectacular Progress.

J. Wesley McNutt, Canadian International Development Agency, Ottawa. First of two 1978 Weyerhaeuser Lectures. Fourth floor lounge, 203 College St. 12 noon.
(Forestry & Landscape Architecture)

The Central Core of Christian Worship.

Rev. Dr. David James Randolph, New York City. Second of three Cousland Lectures, "Festivals for the Future". Lecture Hall, Emmanuel College. 4 p.m.

Robert Henryson: A Poet Thinks about his Art.

Dr. Ian Jamieson, Victoria University, New Zealand. Common Room, Pontifical Institute of Mediaeval Studies, 59 Queen's Park Cresc. E. 4.15 p.m.
(Medieval Studies)

Early Ontario Stained Glass.

Corey Keeble, Royal Ontario Museum. Second of three 1978 Larkin-Stuart Lectures, "Church Art in Ontario". Auditorium, Medical Sciences Building. 8.30 p.m.
(Trinity and St. Thomas' Church)

Thursday, November 16

Forests and Development — A Changing Role for the World Bank.

Dr. Montague Yudelman, Agriculture & Rural Development, World Bank, Washington, D.C. Second of two 1978 Weyerhaeuser Lectures. Auditorium, Medical Sciences Building. 12 noon.
(Forestry & Landscape Architecture)

Expanding Worship.

Rev. Dr. David James Randolph, New York City. Last of three Cousland Lectures, "Festivals for the Future". Lecture Hall, Emmanuel College. 4 p.m.

Crowding — Does it cause stress?

Prof. Jonathan Freedman, Columbia University. Second lecture, focusing on stress and society, in series of three, "Stress". 2074 South Building, Erindale College. 8 p.m. Tickets series \$6, singles \$3. Information, 828-5214.
(Associates of Erindale College)

Church Architecture in the 19th Century.

Anthony Adamson, architect and author, Toronto. Last of three 1978 Larkin-Stuart Lectures, "Church Art in Ontario". 3154 Medical Sciences Building. 8.30 p.m.
(Trinity and St. Thomas' Church)

Friday, November 17

The Unmet Needs of Native People in the Ontario Justice System.

Harvey S. Savage, Ontario Legal Aid Plan. Innis College Town Hall. 12.15 p.m. First talk in Lunch & Learn Club Series II, "Human Rights and Civil Liberties"; membership for four series of lectures, \$25. Information, 978-2400.
(Continuing Studies)

Saturday, November 18

The Alberta Oil Sands and Cold Lake.

R.F. Routledge, Esso Resources Canada Ltd., Calgary. Convocation Hall. 8.15 p.m., doors open 7.30 p.m.
(Royal Canadian Institute)



Seminars

Monday, November 6

The Writing of Fiction.

John Cheever, American novelist. New seminar room, basement of House IV, Massey College. 2 to 4 p.m.

Muon depolarization in condensed matter.

Prof. Tom McMullen, Queen's University. 137 McLennan Physical Laboratories. 4.10 p.m.

Growing Up in Halychyna in the 1930s: A Ukrainian-Canadian Perspective.

Stanley Frolick, Q.C., Toronto. Common Room, 2nd floor, 21 Sussex Ave. 7.30 p.m.

Tuesday, November 7

Sedimentology of the Athabasca Tar Sands.

Dr. Grant Mossop, Alberta Research Council, Canadian Society for Petroleum Geologists distinguished lecturer 1978. 202 Mining Building. 12 noon.

Genetic Recombination of Bacteriophage T7 DNA in vitro.

Dr. Paul Sadowski, Department of Medical Genetics. 235 FitzGerald Building. 3.30 p.m.
(Microbiology & Parasitology)

Colloquia

Monday, November 6

Conformational Control of Intramolecular Reactions by Polymer Chains.

Prof. M. Sisido, Kyoto University. 428 Lash Miller Chemical Laboratories. 4 p.m.

Thursday, November 9

Discovery and Properties of Alchemists' Gold.

Prof. W.R. Datars, McMaster University. 102 McLennan Physical Laboratories. 4.10 p.m.
(Physics and SGS)

Friday, November 10

Synthesis, Reactivity and Dynamics of Mixed Organometallic Clusters.

Prof. G. Geoffroy, Pennsylvania State University. 158 Lash Miller Chemical Laboratories. 4 p.m.

Monday, November 13

Another Try at Liberal Education.

Dean Glen W. Bowersock, Harvard University; discussant, Dean Bernard Etkin, Faculty of Applied Science & Engineering. First of six in Higher Education Colloquium 78/79, "Ideas of the University". Board Room, 12th floor, OISE, 252 Bloor St. W. 4 to 6 p.m.

Meetings

Wednesday, November 8

U of T Research Board.

Presidents of the three federal granting councils will meet with Research Board. Council Chamber, 202 Galbraith Building. 2.10 p.m.
(Please see Research News, page 2)

Saturday, November 11

Move-Grammar: Proposals for a New Model in Narrative Semiotics.

Prof. Thomas Pavel, University of Ottawa. Meeting of Toronto Semiotic Circle. 205 New Academic Building, Victoria College. 10.30 a.m. Information, 978-4004.

Thursday, November 16

South Asians in Canada.

Invitational colloquium, Nov. 16 and 17, for "India Month", program to commemorate 10th anniversary of association of U of T and Shastri Indo-Canadian Institute. Nov. 16 from 7 p.m.; Nov. 17 from 9 a.m. to 5 p.m. International Student

Exploitation of the Athabasca Tar Sands.

Dr. Grant Mossop, Alberta Research Council, CSPG distinguished lecturer 1978. 202 Mining Building. 4 p.m.

Thursday, November 9

Rural-Urban Differences in Stress Reactions: Some Substantive and Methodological Issues.

Prof. Stephen Webb, Victoria University and Pennsylvania State University. Coach House seminar room, 150 St. George St.. 3 to 5 p.m.
(Sociology and Urban & Community Studies)

Some aspects of chemical analysis for monitoring and control of metal pollution.

Dr. L.R.P. Butler, National Physical Research Laboratory, Pretoria. 130 Wallberg Building. 4 p.m.
(IES and Environmental Engineering)

Detritus and Juvenile Salmon

Production in the Nanaimo Estuary. Dr. Bob Naiman, Woods Hole Oceanographic Institute. 432 Ramsay Wright Zoological Laboratories. 4 p.m.
(Rescheduled)

Continued on Page 8

Thursday, November 16

Wave Overreflection: A — Physical Investigation; B — Application to Baroclinic Instability.

Prof. R. Lindzen, National Center for Atmospheric Research, Boulder. 102 McLennan Physical Laboratories. 4.10 p.m.
(Physics and SGS)

Friday, November 17

What Is Consciousness?

Prof. Bruce S. Alton, Centre for Religious Studies. Religious Studies lounge, 14-352 Robarts Library. 1 to 2.30 p.m.

Carbohydrates as Chiral Templates in Organic Synthesis.

Prof. S. Hanessian, Université de Montréal. 158 Lash Miller Chemical Laboratories. 4 p.m.

Centre. If interested in attending, please contact Prof. Jamshed Mavalwala, 978-3294.
(Community Relations)

Friday, November 17

Le Roman de Balzac.

International conference from Friday, Nov. 17 to Sunday, Nov. 19. Sessions Nov. 17: L'inscription symbolique et mythique, 9.15 a.m.; Les Conditions de lisibilité du texte romanesque, 2.15 p.m. Sessions Nov. 18: Modes et fonctionnements narratifs, 9 a.m.; L'énonciation idéologique, 2 p.m. Sessions Nov. 19: L'énonciation idéologique, 9 a.m.; Nomination et représentation du roman, 2 p.m. All sessions will be held in room 3, New Academic Building, Victoria College. Registration fee \$15, students \$7. Information, 978-3812.
(French and Victoria College)

Events

Miscellany

Tuesday, November 7
Journalism.

John Spragge, vice-president programming, CFRB, will give last of three talks in series. Library, Hart House. 8 p.m.
(HH Library Committee)

Wednesday, November 8
Careertalks.

Representatives from business, industry, government, and the academic world will discuss occupational areas and academic programs with students. Talks are held Monday and Wednesday in 1069 Sidney Smith Hall from 1 to 3 p.m. Wednesday, Nov. 8 and Monday, Nov. 13, law and law related careers. Wednesday, Nov. 15, library careers. Monday, Nov. 20, Canadian University Service Overseas (CUSO) Information, 978-2537.
(Career Counselling & Placement Centre)

Thursday, November 9
Women's Hockey.

Blues vs Guelph. Varsity Arena. 7.30 p.m.

Friday, November 10

Men's Hockey.

Blues vs Laurentian. Varsity Arena. 7 p.m. Reserved seats \$2, general admission \$1. Telephone, 979-2186.

Tuesday, November 14

Open House.

Middle East & Islamic Studies will hold open house for those who wish to learn more about these studies as offered at U of T. Baldwin Room, International Student Centre, 33 St. George St. 5 to 7 p.m.

Friday, November 17

Women's Hockey.

Blues vs Queen's. Varsity Arena. 2 p.m.

Saturday, November 18

Women's Basketball.

Blues vs Brock (double-header). Sports gym, Benson Building. 6.15 p.m. Admission \$1.

Men's Basketball.

Blues vs Brock (double-header). Sports gym, Benson Building. 8.15 p.m. Admission \$1.

Monday, November 20

APUS Tenth Anniversary.

To celebrate its 10th anniversary, the Association for Part-Time Undergraduate Students invites the University community to pub nights. Fifth floor lounge, Sidney Smith Hall. Monday to Thursday from 9 to 11 p.m.

Plays & Readings

Monday, November 6

What the Crow Said.

Robert Kroetsch will read from his newly published novel. R-3103 Scarborough College. 12 noon.

Tuesday, November 7

A Reading of Three Poems.

Dennis Lee, writer-in-residence, will read his own poetry. B-C-D Upper Brennan Hall, St. Michael's College. 8 p.m.
(Writer-in-residence Committee, English)

Wednesday, November 8

Stuart MacKinnon.

Second reading in Erindale Poetry Series. 264 North Building, Erindale College. 12 noon.

Thursday, November 9

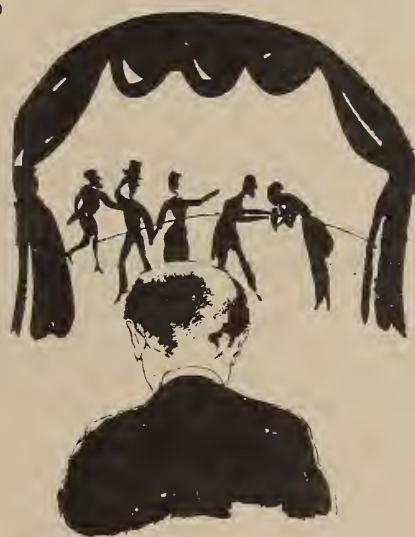
Phyllis Gotlieb.

Third in series of poetry readings at New College. 1016 New College, 30 Willcocks St. 8 p.m.

Monday, November 13

UC Poetry Readings.

Profs. Hugo de Quehen and Colin Visser, Department of English, will read Restoration poetry. Walden Room, Women's Union, 79 St. George St. 4.10 p.m.



Wednesday, November 22

Trilby.

Paul M. Potter, adapted from George du Maurier's novel, in which a beautiful Paris model is turned into the singer of the century by the evil genius, Svengali. Directed by Paula Sperdakos, designed by Janice Lindsay; second of three in Drama Centre season of 19th century plays. Hart House Theatre, Nov. 22 to 25 and Nov. 29 to Dec. 2 at 8 p.m. (Please note new time.) Tickets \$5, students \$2.50. Tickets and information, 978-8668.

Films

Wednesday, November 8

Fire Within.

Ninth in series of 12, "Planet of Man", television series by Dr. J. Tuzo Wilson. 2080 South Building, Erindale College. 1 p.m.

Thursday, November 9

Germany-Dada: An Alphabet of German Dadaism.

Sixth of "Museum Without Walls" series, explores aims and activities of this revolutionary group of artists and writers, filmed with the co-operation of two Dadaists, Hans Richter and Richard Huelsenbeck. Hart House Art Gallery. Two screenings: 12 noon and 7 p.m.

Wednesday, November 15

Mountain Heritage: Appalachians.

Tenth in series of 12, "Planet of Man", television series by Dr. J. Tuzo Wilson. 2080 South Building, Erindale College. 1 p.m.

Thursday, November 16

Kinetic Art in Paris.

Seventh of "Museum Without Walls" series, studies light and movement and how they have inspired modern artists' experiments. Hart House Art Gallery. Two screenings: 12 noon and 7 p.m.

Exhibitions

Monday, November 13

African Mosaic.

Exhibition of photographs by John Holtom. New Academic Building, Victoria College, to Dec. 6. Hours: Monday-Thursday to 9 p.m., Friday to 5 p.m.

Fringe Research.

Exhibition of holography-painting-photography by group, founded in 1975 by Michael Sowdon and David Hlynsky, with the original purpose of creating a facility devoted to exploring the artistic potential of the holographic

Concerts

Tuesday, November 7

Trombone Quartet.

Afternoon classical concert. Music Room, Hart House. 1.10 p.m.

Wednesday, November 8

Barth and Haines.

Wednesday afternoon pop concert. East Common Room, Hart House. 12 noon to 2 p.m.

Thursday, November 9

Nick Walton, guitar.

Afternoon classical concert. Music Room, Hart House. 1.10 p.m.

Compositions by student composers.

Recital in Thursday Afternoon Series. Walter Hall, Edward Johnson Building. 2.10 p.m.

Friday, November 10

Camerata.

First concert in series of three presented by Musical Associates of Scarborough College. Meeting Place, Scarborough College. 8.30 p.m. Tickets: series \$10, students and senior citizens \$9; singles \$5, students and senior citizens \$4, for Camerata and Festival Singers concerts, \$2 all tickets for Scarborough Symphony concert. Information, 284-3243.

Sunday, November 12

U of T Wind Symphony.

Conductor Melvin Berman. Program includes transcriptions of works by Bartok, Wagner and Tchaikovsky, and four works by contemporary American composers written for wind ensemble. MacMillan Theatre, Edward Johnson Building. 3 p.m. Information, 978-3744.

Schumann at Hart.

Orford String Quartet will give third in series of six weekly Sunday concerts, in co-operation with CBC, of chamber music of Robert Schumann. Great Hall, Hart House. 3 p.m. Free tickets for Hart House members from hall porter one week prior to concert; others \$2.50 from CBC, telephone 925-3311, ext. 4835. Information, 978-2447.

Tuesday, November 14

Ellen Meyer, piano.

Afternoon classical concert. Music Room, Hart House. 1.10 p.m.

imaging process. Scarborough College Gallery to Nov. 27.

Gallery hours: Monday-Thursday, 9 a.m. to 7 p.m.; Friday, 9 a.m. to 5 p.m.; Saturday-Sunday, 2 to 5 p.m.

Tuesday, November 14

Zofia Dlugopolska, Gobelin tapestries, and Lanny Shereck, sculptures.

Hart House Art Gallery to Dec. 1. Gallery hours: Monday, 11 a.m. to 9 p.m.; Tuesday-Saturday, 11 a.m. to 5 p.m.; Sunday, 2 to 5 p.m.

Wednesday, November 15

Paul Quarrington Duo.

Wednesday afternoon pop concert. East Common Room, Hart House. 12 noon to 2 p.m.

John Kruspe, piano.

Fourth Wednesday noon-hour concert. Variations and Fugue on a theme of Handel, Brahms. Concert Hall, Royal Conservatory of Music. 12.15 to 12.45 p.m. Information, 978-3771.

Thursday, November 16.

Sister Barbara Ianni, soprano.

Second in Thursday Twilight Series. Wesendonck Lieder of Wagner and Wie nahte hier die Schlimmer, Weber. Concert Hall, Royal Conservatory of Music. 5.15 p.m. Information, 978-3771.

Saturday, November 18

U of T Concert Band.

Conductor, Ronald Chandler. Program of Canadian band music, works by Larry Bond, Morley Calvert, James Gayfer and John Weinzwieg. MacMillan Theatre, Edward Johnson Building. 8.30 p.m. Information, 978-3744.

Sunday, November 19

U of T Concert Choir.

Conductor, John Tuttle. Program includes Mass in G Major, Poulenc, and King David, Honegger. Walter Hall, Edward Johnson Building. 3 p.m. Tickets \$2, students and senior citizens \$1. Information, 978-3744.

Schumann at Hart.

Andrew Dawes, violin; Rivka Golani-Erdesz, viola; Tsuyoshi Tsutsumi, cello; Elyakim Taussig, piano, will give fourth in series of six weekly Sunday concerts, in co-operation with CBC, of chamber music of Robert Schumann. Great Hall, Hart House. 3 p.m. Free tickets for Hart House members from hall porter one week prior to concert; others \$2.50 from CBC, telephone 925-3311, ext. 4835. Information, 978-2447.



Seminars

Continued from Page 6

Thursday, November 9

Regeneration Studies in Amphibians.
Prof. Richard Liversage, Department of Zoology. 2082 South Building, Erindale College. 5.15 p.m.

Friday, November 10

Effects of dietary protein on plasma cholesterol levels and atherosclerosis.
Dr. K.K. Carroll, University of Western Ontario. 2173 Medical Sciences Building. 11 a.m.

Late-Quaternary Ecosystems in North-West North America.
Prof. J.C. Ritchie, Scarborough College. Room 7, Botany Building. 3.30 p.m.

Monday, November 13

War and the State.
Richard Barnet, Institute for Policy Studies, Washington, D.C. First of three seminars being given by American Studies lecturer. Croft Chapter House. 2 to 4 p.m.

Modulation of receptor activity by membrane lipid composition.
Dr. Arnis Kuksis, Banting & Best Department of Medical Research. 417 Best Institute. 4 p.m. (Rescheduled from Nov. 6)

Membrane-cytoskeleton interactions in ascites tumor cells.
Prof. Kermit L. Carraway, Oklahoma State University. 2172 Medical Sciences Building. 4 p.m. (Biochemistry)

Resonant Brillouin scattering from excitons in CdS.
Prof. Herman Cummins, City College of New York. 137 McLennan Physical Laboratories. 4.10 p.m.

Saving the Displaced Persons: The Central Ukrainian Relief Bureau.
Stanley Frolick, Q.C., Toronto. Common Room, 2nd floor, 21 Sussex Ave. 7.30 p.m.

Tuesday, November 14

Membrane-Cytoskeletal Interaction in Lymphoblastoid and Fibroblastoid Cells.
Prof. L.Y.W. Bourguignon, Wayne State University. 235 FitzGerald Building. 3 p.m. (Microbiology & Parasitology)

Burial History and Paleotemperatures of Pine Point Host Rocks Interpreted from Organic Geochemistry.
Prof. Roger Macqueen, University of Waterloo. 202 Mining Building. 4 p.m.

Wednesday, November 15

Roots of War.
Richard Barnet, Institute for Policy Studies, Washington, D.C. Second of three seminars being given by American Studies lecturer. 175 University College. 9.15 to 11 a.m.

Tetrads in Industrial Relations and Drop-outs from Management.
Prof. Marshall McLuhan, Centre for Culture & Technology. Room 302, Centre for Industrial Relations, 123 St. George St. 12.15 to 1.45 p.m.

The Politics of Detente.
Richard Barnet, Institute for Policy Studies, Washington, D.C. Last of three seminars being given by American Studies lecturer. Council Chamber, S-403 Scarborough College. 1.30 to 3 p.m.

Biosynthesis and Processing of Membrane Glycoproteins.
Prof. P.W. Robbins, Massachusetts Institute of Technology. 2172 Medical Sciences Building. 4 p.m. (Biochemistry)

Neuronal Mechanisms of Reticulo-Thalamic Relations.
Dr. A.A. Savad-Airapetyan, L.A. Orbeli Institute of Physiology, Armenian Academy of Sciences, USSR. 3227 Medical Sciences Building. 4 p.m.

Thursday, November 16

Diet and Atherosclerosis: Everything Counts.
Dr. David Kritchevsky, Wistar Institute of Anatomy and Biology, Philadelphia. 2173 Medical Sciences Building. 12 noon. (Nutrition & Food Science)

Toxic substances in the petroleum industry.
Warren Grant, Gulf Canada Ltd. 130 Wallberg Building. 4 p.m. (IES and Environmental Engineering)

Non-spiking Interneurons: Their Role in Behaviour.
Prof. Charles Fourtner, State University of New York, Buffalo. 432 Ramsay Wright Zoological Laboratories. 4 p.m.

Is There a Cell Biology of Associative Learning?
Prof. George J. Mpitsos, Case Western Reserve University. 2082 South Building, Erindale College. 5.15 p.m. College. 5.15 p.m.

Friday, November 17

The Implications of Metal-Ion Nucleic Acid Interactions for the Aging Process.
Dr. Gunter Eichhorn, National Institute on Aging, Baltimore. 3227 Medical Sciences Building. 11 a.m. (Physiology and SGS)

Monoclonal Antibodies to Cell Surface Antigens of Chick Neural Retina.
Dr. Frank Walsh, National Institutes of Health, Bethesda. 235 FitzGerald Building. 3 p.m. (Microbiology & Parasitology)

Monday, November 20

Genetic control of the immune response to insulin.1
Dr. Terry Delovitch, Banting & Best Department of Medical Research. 417 Best Institute. 4 p.m.

The Taching Oilfield and Impressions of Contemporary China.
Dr. William Gussow, geological consultant, Ottawa. 202 Mining Building. 4 p.m. (Geology, SGS and SGS Alumni Assoc.)

Employees' Participation in Management: Theory and Practice.
Prof. Chris Jecchinis, Lakehead University. Room 302, Centre for Industrial Relations, 123 St. George St. 4 p.m.

Critical resistivity in Dysprosium.
Prof. Wallace Geldart, Dalhousie University. 137 McLennan Physical Laboratories. 4.10 p.m.

The Orthodox Church under Soviet Control in Ukraine: A Study in the Control of Religious Thought and Institutions.
Mariika Hurko, Carleton University. Common Room, 2nd floor, 21 Sussex Ave. 7.30 p.m.

Tuesday, November 21
Collagenase Secretion and Cell Mediated Autoimmunity in Rheumatoid Arthritis.
Dr. Robin Poole, R.S. McLaughlin Visiting Scientist from Shriners' Hospital, Montreal. 108 Dentistry Building, 124 Edward St. 12 noon.

Chitosomes: A clue to the mystery of cell wall formation in fungi.
Prof. C.E. Bracker, Purdue University. Room 7, Botany Building. 4 p.m.

The Migration of Oil.
Dr. William Gussow, geological consultant, Ottawa. 202 Mining Building. 4 p.m. (Geology, SGS and SGS Alumni Assoc.)

Forum

Support Shcharansky, Massera, urges mathematician

During February 1978 more than 1,400 U of T faculty members authorized a message to the Prime Minister of Canada. This message asked for effective action to help persuade the Soviet authorities to allow emigration for all who had committed no crime but faced intolerable oppression. Many persons outside the University expressed approval of this effort; resolutions of support were passed by the Ontario Legislature and the Metropolitan Toronto Council.

This message has surely influenced the attitude of the Canadian government.

On June 5, I wrote to the Prime Minister asking that he make a direct request to the President of the USSR for emigration for A. Shcharansky and to the President of Uruguay for emigration of Professor José Luis Massera. Both Shcharansky and Massera are mathematicians, both have been adopted by Amnesty International and their cases have become important at an international level. Canada has already offered asylum to Shcharansky and France has offered a professorship at University of Paris to Massera.

The Prime Minister sent a sympathetic reply but he did not say he would take the action requested.

Of course the Prime Minister ought not to be asked lightly to intervene. But the present situation is so grim and these

two cases are of such importance that it would be appropriate for the Prime Minister to take this action of moral leadership if he had the backing of the Canadian people.

Letters supporting this request have already been sent to the Prime Minister by hundreds of Canadian mathematicians including the president of the Canadian Mathematical Society, by University Professor Louis Siminovitch and 140 U of T medical faculty, by Professors H.S.M. Coxeter, F.R.S., and Harry Welsh, F.R.S., by Senator Eugene Forsey and several members of parliament, by Pierre Berton and Mayor White of York, by the Executive Committee of the Alpha Omega (Dental) Fraternity, by the Executive Committee of Amnesty International (Canada), and by others.

I therefore ask my colleagues, if they approve, to write to the Prime Minister, to express support for "the request made on behalf of Shcharansky and Massera in the June 5, 1978 letter from Toronto mathematician Israel Halperin". I would appreciate it if they sent me a copy of their letters.

Israel Halperin
Department of Mathematics

87 percent are successful

Thank you for your welcome article on Woodsworth's pre-U program in the *Bulletin* of Oct. 23. May I correct what may have been a typographical error? The article quotes director Carol McKay as saying that 80 percent of the English students who enrolled in courses in the Faculty of Arts & Science in 1977-78 received grades of A, B, or C in their degree courses. The figure for English should be 87 percent, with nearly 60 percent of these in the A-B range. (In Carol McKay's absence on vacation I refer to her printed report,

dated July 28, 1978.) Since more than half of all pre-U students are enrolled in English the higher figure is a significant one for the program.

Eleanor Morgan
Academic Co-Ordinator
Pre-University English Program
Woodsworth College

American Studies Lecture

U.S.-Soviet Detente:
Where is it going?
by

RICHARD BARNET

Institute for Policy Studies,
Washington D.C.

Nov. 14, 4:10 p.m.

Medical Sciences Auditorium

Three Seminars

War and the State

Nov. 13, 2-4 p.m.

Croft Chapter House

Roots of War

Nov. 15, 9:15-11 a.m.

Room 175, University
College

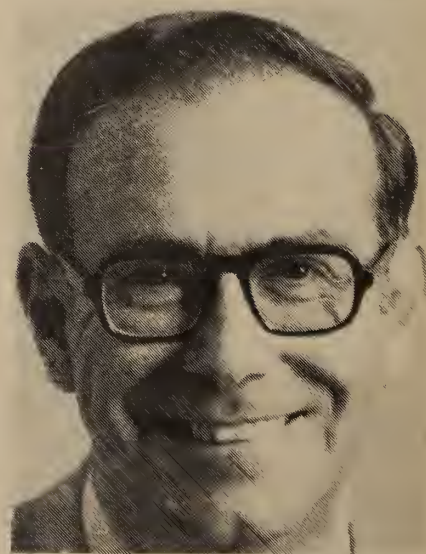
The Politics of Detente

Nov. 15, 1:30-3 p.m.

Council Chambers

(Room S-403)

Scarborough College



SGS associate dean

Arthur M. Zimmerman, professor of zoology, has been appointed associate dean, Division IV (Life Sciences), School of Graduate Studies.

Prof. Zimmerman completed his undergraduate and graduate work at New York University, and was an assistant professor at the Downstate Medical Center, State University of New York, before joining the faculty of the Department of Zoology as a professor in 1964.